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Accurate level energies in the EF1S+g, GK1S+g, H1S+g, B1S+u, C1Pu, B'1S+u, D1Pu, I1Pg, J1Dg states of H₂

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H₂ Rovibronic Transitions

2000-22000 cm⁻¹

This document contains the spectral line positions as derived from the Fourier-Transform emission study, as described in the paper

Accurate level energies in the $EF^1\Sigma_g^+$, $GK^1\Sigma_g^+$, $H^1\Sigma_g^+$, $B^1\Sigma_u^+$, $C^1\Pi_u$, $B'^1\Sigma_u^+$, $D^1\Pi_u$, $I^1\Pi_g$, $J^1\Delta_g$ states of H_2

by D. Bailly, E. J. Salumbides, M. Vervloet, and W. Ubachs,
which appeared in *Molecular Physics* xx, xxx-xxx (2009).

Note:

The spectral assignment for the line positions in this Appendix may differ somewhat from the assignment in the Tables of the level energies in the Molecular Physics paper. Where in the paper a “natural assignment” was adopted (shown in Fig. 6), in this Appendix the EF, GK, H, I, and J states were assigned according to that of Ross and Jungen [Phys. Rev. A50, 4618-4628], the levels of the B and C states were assigned according to Dabrowski [Can. J. Phys. 62, 1639-1664 (1984)], and the B' states were assigned according to Tsukiyama and coworkers [J. Chem. Phys. 97, 875-882 (1992), J. Mol. Spectr. 155, 352-359 (1992), Laser Chem. 14, 31-44 (1994)].

TRANSITIONS

$$\mathbf{EF \rightarrow B}$$

H ₂ EF → B 0-0					H ₂ EF → B 0-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 2	8908.576	8908.575	6.269	-1	P 2	7596.016	7596.016	10.593	0
P 3	8919.877	8919.876	6.184	-1	P 1	7606.062	7606.062	10.164	0
P 1	8922.449	8922.448	6.123	-1	P 3	7612.934	7612.935	10.398	1
P 4	8956.388	8956.388	6.186	0	P 4	7656.713	7656.713	9.988	0
P 5	9017.966				R 0	7706.394	7706.394	9.003	0
R 0	9024.718	9024.718	7.326	0	P 5	7727.031	7727.032	10.238	1
P 6	9104.284	9104.282	5.715	-2	R 1	7795.831	7795.830	8.367	-1
R 1	9112.218	9112.219	6.955	1	P 6	7823.359	7823.360	7.268	1
P 7	9214.823	9214.823	4.967	0	R 2	7910.564	7910.564	7.538	0
R 2	9223.123	9223.123	6.394	0	P 7	7944.962	7944.963	5.790	1
P 8	9348.856	9348.855	4.736	-1	R 3	8049.703			
R 3	9356.646	9356.645	5.553	-1	P 8	8090.882	8090.882	5.500	0
P 9	9505.573	9505.572	4.453	-1	R 4	8212.208	8212.205	5.770	-3
R 4	9511.883	9511.883	5.234	0	P 9	8260.090	8260.091	4.474	1
P10	9683.799	9683.800	4.459	1	R 5	8396.904	8396.903	4.096	-1
R 5	9687.838	9687.839	4.835	1	P10	8451.206	8451.206	4.005	0
P11	9882.396	9882.398	1.743	2	R 6	8602.469	8602.468	4.341	-1
R 6	9883.394	9883.396	4.010	2	P11	8662.897	8662.896	3.866	-1
R 7	10097.450	10097.448	3.235	-2	R 7	8827.589	8827.589	3.699	0
P12	10099.602	10099.602	4.417	0	P12	8893.270	8893.268	5.493	-2
R 8	10328.660	10328.660	3.937	0	R 8	9070.686	9070.686	7.005	0
R 9	10575.794	10575.794	2.816	0	R 9	9330.311	9330.312	4.559	1
R10	10837.124	10837.125	3.001	1	R10	9604.531	9604.531	4.408	0
R11	11109.893	11109.892	1.879	-1	R11	9890.394	9890.396	3.186	2
R12	11392.118				R12	10185.787	10185.792	2.948	5
RMS= 0.9 10 ³ cm ⁻¹					RMS= 1.1 10 ³ cm ⁻¹				
H ₂ EF → B 0-2					H ₂ EF → B 0-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 2	6319.431	6319.431	11.953	0	P 2	5077.053	5077.053	10.216	0
P 1	6326.229	6326.229	10.017	0	P 1	5080.972	5080.971	10.284	-1
P 3	6341.135	6341.137	11.602	2	P 3	5103.007	5103.007	11.285	0
P 4	6391.136	6391.137	15.073	1	P 4	5158.554	5158.554	9.947	0
R 0	6424.918	6424.918	14.818	0	R 0	5178.208	5178.208	9.985	0
P 5	6468.988	6468.989	15.684	1	P 5	5243.150	5243.149	9.383	-1
R 1	6515.998	6515.998	15.968	0	R 1	5270.741	5270.742	9.681	1
P 6	6574.015	6574.016	14.615	1	P 6	5356.008	5356.010	6.187	2
R 2	6633.979	6633.980	15.480	1	R 2	5391.601	5391.601	9.518	0
P 7	6705.323	6705.323	12.172	0	P 7	5496.105	5496.109	4.568	4
R 3	6777.904	6777.904	14.068	0	R 3	5539.776	5539.776	8.542	0
P 8	6861.792	6861.793	11.475	1	P 8	5662.209	5662.211	6.926	2
R 4	6946.631	6946.632	13.176	1	R 4	5714.048	5714.050	5.973	2
P 9	7042.535	7042.535	5.136	0	P 9	5852.977	5852.976	4.207	-1
R 5	7138.861	7138.860	8.673	-1	R 5	5913.023	5913.028	0.346	5
P10	7245.085	7245.086	10.035	1	R 6	6135.118	6135.118	5.017	0
R 6	7353.126	7353.123	9.112	-3	R 7	6378.732	6378.735	2.760	3
P11	7468.893	7468.892	6.211	-1	R 8	6642.013	6642.012	9.564	-1
R 7	7587.950				R 9	6923.198	6923.196	5.610	-2
P12	7711.617	7711.619	5.978	2	RMS= 1.2 10 ³ cm ⁻¹				
R 8	7841.596	7841.593	5.268	-3					
P13	7970.174	7970.173	4.004	-1					
R 9	8112.756								
R10	8398.410	8398.412	3.818	2					
R11	8696.390	8696.391	2.840	1					
R12	9004.134								
RMS= 1.0 10 ³ cm ⁻¹									

H₂ EF → B 0-4					H₂ EF → B 0-5				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻³cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻³cm⁻¹
P 2	3867.981	3867.981	18.964	0	P 1	2690.505	2690.503	4.304	-2
P 1	3869.277				P 2	2691.646	2691.647	36.160	1
P 3	3897.813	3897.814	15.717	1	P 3	2725.083	2725.077	3.037	-6
P 4	3958.431	3958.431	15.738	0	R 0	2785.191	2785.192	19.500	1
R 0	3965.191	3965.191	15.524	0	P 4	2790.422	2790.422	35.153	0
P 5	4049.210	4049.214	13.479	4	R 1	2880.274	2880.276	1.134	2
R 1	4059.046	4059.048	13.434	2	P 5	2886.969	2886.968	4.197	-1
P 6	4169.277				R 2	3006.194	3006.196	18.245	2
R 2	4182.529	4182.531	14.202	2	P 6	3013.769	3013.769	16.355	0
P 7	4317.504	4317.505	2.875	1	R 3	3161.852			
R 3	4334.582	4334.584	10.891	2	R 4	3345.917			
R 4	4513.926	4513.928	9.172	2	R 5	3556.841			
R 5	4719.082				R 6	3792.879			
R 6	4948.387	4948.385	2.163	-2	RMS= 15 10³cm⁻¹				
R 7	5200.132								
RMS = 1.6 10⁻³ cm⁻¹									
H₂ EF → B 1-1					H₂ EF → B 1-2				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻³cm⁻¹
P 6	7271.97	7271.93	1.207	-4	P 6	6022.624			
P 5	7421.68				P 5	6163.635	6163.637	4.605	2
P 4	7551.11	7551.12	2.913	1	P 4	6285.537	6285.541	1.833	4
P 3	7658.89				P 3	6387.092			
R 4	7660.82	7660.83	6.258	1	R 4	6395.240	6395.237	0.876	-3
P 2	7743.84	7743.83	1.291	-1	P 2	6467.260	6467.263	7.457	3
R 3	7744.35	7744.39	0.040	4	R 3	6472.550			
R 2	7804.96	7804.99	0.071	3	P 1	6525.330	6525.331	2.479	1
P 1	7805.16	7805.18	0.136	2	R 2	6528.380	6528.382	7.661	2
R 1	7841.79				R 1	6561.955	6561.956	3.270	1
R 0	7854.22				R 0	6572.747	6572.748	6.416	2
RMS= 18 10²cm⁻¹					RMS= 23 10³cm⁻¹				
H₂ EF → B 1-3					H₂ EF → B 1-4				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻³cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻³cm⁻¹
P 6	4804.616	4804.617	5.114	1	P 5	3743.856	3743.853	8.669	-3
P 5	4937.797	4937.800	4.022	3	P 4	3852.832	3852.832	13.227	0
P 4	5052.955	5052.955	7.501	0	P 3	3943.770	3943.766	11.994	-4
P 3	5148.964	5148.966	7.418	2	R 4	3962.534	3962.531	10.863	-3
R 4	5162.657	5162.655	4.053	-2	P 2	4015.810	4015.811	13.369	1
P 2	5224.882	5224.881	7.281	-1	R 3	4029.228	4029.226	8.847	-2
R 3	5234.422	5234.422	3.494	0	P 1	4068.378			
P 1	5280.073				R 2	4076.930			
R 2	5286.002	5286.001	6.165	-1	R 1	4105.003	4105.004	8.196	1
R 1	5316.698	5316.699	3.889	1	R 0	4113.020	4113.022	11.709	2
R 0	5326.037	5326.041	1.636	4	RMS= 26 10³cm⁻¹				
RMS= 16 10³cm⁻¹									

H ₂ EF → B 1-5					H ₂ EF → B 2-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	2462.378	2462.372	13.238	-6	P 8	8106.06	8106.05	3.965	-1
P 5	2581.615	2581.614	6.857	-1	P 7	8293.27	8293.24	4.371	-3
P 4	2684.823	2684.822	28.644	-1	P 6	8463.23	8463.22	3.162	-1
P 3	2771.040	2771.040	17.437	0	P 5	8614.22	8614.20	3.181	-2
R 4	2794.526	2794.522	16.439	-4	R 6	8617.65			
P 2	2839.475	2839.474	31.389	-1	P 4	8744.66	8744.66	7.212	0
R 3	2856.498				R 5	8745.21			
P 1	2889.606	2889.606	23.310	0	R 4	8852.08	8852.08	9.679	0
R 2	2900.595	2900.594	27.565	1	P 3	8853.18			
R 1	2926.231	2926.232	10.506	1	R 3	8936.89	8936.84	0.054	-5
R 0	2933.020	2933.018	23.613	-2	P 2	8938.64	8938.62	5.727	-2
RMS= 2.1 10 ³ cm ⁻¹					R 2	8998.51	8998.51	3.162	0
					P 1	9000.13	9000.13	0.819	0
					R 1	9036.08	9036.06	1.641	-2
					R 0	9049.02	9049.03	2.576	1
					RMS= 1.3 10 ² cm ⁻¹				
H ₂ EF → B 2-2					H ₂ EF → B 2-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 8	6876.969	6876.973	6.652	4	P 8	5677.386	5677.386	3.513	0
P 7	7053.627	7053.626	4.397	-1	P 7	5844.409			
P 6	7213.886				P 6	5995.879	5995.880	5.196	1
P 5	7356.175	7356.175	5.892	0	P 5	6130.337	6130.335	4.470	-2
R 6	7368.303	7368.300	4.206	-3	R 6	6150.295	6150.299	1.899	4
P 4	7479.083	7479.085	10.963	2	P 4	6246.501	6246.500	6.384	-1
R 5	7487.164	7487.167	2.189	3	R 5	6261.326	6261.328	1.496	2
P 3	7581.385	7581.387	15.416	2	P 3	6343.257	6343.261	5.963	4
R 4	7586.502	7586.506	4.608	3	R 4	6353.919	6353.918	4.060	-1
P 2	7662.056	7662.047	9.626	-9	P 2	6419.678	6419.678	10.147	0
R 3	7665.090	7665.087	3.178	-4	R 3	6426.962	6426.967	6.325	5
P 1	7720.293	7720.292	3.254	-1	P 1	6475.037	6475.036	12.647	-1
R 2	7721.926	7721.929	5.061	3	R 2	6479.548	6479.547	14.416	-1
R 1	7756.248	7756.249	3.052	2	R 1	6510.991	6510.991	12.699	0
R 0	7767.542	7767.544	4.942	2	R 0	6520.833	6520.832	13.684	-1
RMS= 3.8 10 ⁻³ cm ⁻¹					RMS= 1.7 10 ³ cm ⁻¹				
H ₂ EF-B 2-4					H ₂ EF → B 2-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 7	4665.808	4665.804	6.121	-4	P 4	3878.37	3878.36	1.811	-1
P 6	4809.148	4809.147	6.441	0	P 3	3965.33			
P 5	4936.396	4936.395	5.415	-1	R 4	3985.79			
R 6	4963.564	4963.568	3.316	4	P 2	4034.27	4034.28	1.187	1
P 4	5046.378	5046.377	7.003	-1	R 3	4049.04			
R 5	5067.386				P 1	4084.57			
P 3	5138.063	5138.066	5.546	3	R 2	4094.14			
R 4	5153.797	5153.799	4.390	2	R 1	4120.52	4120.54	16.797	2
P 2	5210.606	5210.606	9.081	0	R 0	4127.82			
R 3	5221.768	5221.765	3.604	-3	RMS= 1.7 10 ² cm ⁻¹				
P 1	5263.342	5263.343	6.001	1					
R 2	5270.476	5270.476	7.362	0					
R 1	5299.296	5299.295	7.639	-1					
R 0	5307.816	5307.816	7.135	0					
RMS= 2.0 10 ³ cm ⁻¹									

H ₂ EF → B 2-6					H ₂ EF → B 3-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 4	2742.20	2742.20	20.375	0	P 2	11234.384	11234.385	4.204	1
R 5	2774.42				P 3	11236.963	11236.963	3.804	0
P 3	2824.71				P 1	11252.406	11252.406	4.310	0
R 4	2849.62	2849.62	3.035	0	P 4	11263.027	11263.028	4.809	1
P 2	2890.24	2890.24	23.231	0	P 5	11307.671	11307.672	3.870	1
R 3	2908.41				R 0	11350.527	11350.528	4.098	1
P 1	2938.23				P 6	11373.168	11373.169	3.858	1
R 2	2950.11	2950.11	13.870	0	R 1	11429.304	11429.305	3.929	1
R 1	2974.19	2974.17	6.674	-2	P 7	11455.176			
R 0	2980.31	2980.30	1.291	-1	R 2	11529.762	11529.763	3.058	1
RMS= 0.6 10 ² cm ⁻¹					R 3	11646.351	11646.352	2.903	1
					R 4	11780.768	11780.768	2.764	0
					R 5	11928.191			
					RMS= 0.9 10 ³ cm ⁻¹				
H ₂ EF → B 3-1					H ₂ EF → B 3-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 2	9921.82	9921.82	4.789	0	P 2	8645.240	8645.240	5.917	0
P 3	9930.02	9930.02	3.071	0	P 1	8656.186	8656.184	5.837	-2
P 1	9936.02	9936.03	5.971	1	P 3	8658.221	8658.221	4.146	0
P 4	9963.35	9963.35	5.537	0	P 4	8697.775	8697.773	4.311	-2
P 5	10016.74	10016.72	3.618	-2	R 0	8750.727	8750.726	5.700	-1
R 0	10032.20	10032.20	1.344	0	P 5	8758.694	8758.694	3.953	0
P 6	10092.24	10092.24	3.370	0	R 1	8833.084	8833.084	5.971	0
R 1	10112.92				P 6	8842.900	8842.901	4.035	1
P 7	10185.32				R 2	8940.617	8940.618	5.994	1
R 2	10217.20	10217.19	3.155	-1	R 3	9067.610	9067.609	5.063	-1
R 3	10339.41				R 4	9215.516	9215.515	5.035	-1
R 4	10481.09				R 5	9379.214			
R 5	10637.26				RMS= 1.0 10 ³ cm ⁻¹				
RMS= 0.7 10 ³ cm ⁻¹									
H ₂ EF → B 3-3					H ₂ EF → B 3-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 2	7402.862	7402.862	12.314	0	P 2	6193.790	6193.789	7.808	-1
P 1	7410.929	7410.929	12.151	0	P 1	6199.234	6199.234	7.846	0
P 3	7420.093	7420.093	10.462	0	P 3	6214.899	6214.899	7.867	0
P 4	7465.192	7465.192	12.863	0	P 4	6265.069	6265.069	7.652	0
R 0	7504.017	7504.017	10.139	0	R 0	6291.000	6291.000	6.749	0
P 5	7532.856	7532.855	5.451	-1	P 5	6338.916	6338.917	8.424	1
R 1	7587.827	7587.828	7.713	1	R 1	6376.132	6376.133	7.864	1
P 6	7624.892	7624.891	5.910	-1	P 6	6438.161	6438.161	11.921	0
R 2	7698.239	7698.241	7.946	2	R 2	6489.167	6489.168	16.218	1
P 7	7736.458				P 7	6557.858			
R 3	7829.482	7829.482	6.797	0	R 3	6624.288	6624.288	11.938	0
R 4	7982.933	7982.933	5.468	0	R 4	6782.810	6782.810	10.946	0
R 5	8153.376				R 5	6959.435	6959.435	7.267	0
RMS= 0.7 10 ³ cm ⁻¹					RMS= 0.4 10 ³ cm ⁻¹				

H₂ EF → B 3-5					H₂ EF → B 3-6				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³cm⁻¹
P 2	5017.455	5017.454	10.826	-1	P 2	3873.420	3873.421	20.341	1
P 1	5020.462	5020.462	10.954	0	P 1	3874.124	3874.122	13.889	-2
P 3	5042.169	5042.175	7.506	6	P 3	3901.545	3901.544	16.046	-1
P 4	5097.060	5097.061	10.376	1	P 4	3960.892	3960.892	15.760	0
R 0	5111.000	5110.999	10.336	-1	R 0	3963.496	3963.497	15.380	1
P 5	5176.675	5176.676	9.549	1	P 5	4045.952	4045.951	12.302	-1
R 1	5197.360	5197.359	11.898	-1	R 1	4051.022	4051.023	13.250	1
P 6	5282.654	5282.654	9.136	0	R 2	4168.798	4168.801	14.075	3
R 2	5312.832				R 3	4310.934	4310.936	10.188	2
R 3	5451.558	5451.558	7.156	0	R 4	4478.633	4478.635	9.213	2
R 4	5614.801	5614.799	6.541	-2	R 5	4666.471			
R 5	5797.194				RMS = 1.7 10³ cm⁻¹				
H₂ EF → B 3-7					H₂ EF → B 4-0				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 1	2759.829	2759.827	12.591	-2	P 8	10498.06	10498.05	0.577	-1
P 2	2761.418	2761.417	36.260	-1	P 7	10698.65	10698.62	0.353	-3
P 3	2792.854	2792.854	27.514	0	P 6	10881.08	10881.01	2.068	-7
R 0	2848.020	2848.018	26.260	-2	R 6	11032.59			
P 4	2856.468	2856.467	26.499	-1	P 5	11042.77	11042.78	0.400	1
R 1	2936.727	2936.725	5.729	-2	R 5	11171.66	11171.74	0.117	8
P 5	2946.688	2946.690	7.663	2	P 4	11182.20	11182.20	1.181	0
R 2	3056.795	3056.793	21.821	-2	R 4	11288.68	11288.66	0.392	-2
P 6	3065.046	3065.046	20.718	0	P 3	11300.35			
R 3	3202.243				R 3	11381.45			
R 4	3374.208				P 2	11391.21			
R 5	3567.207				R 2	11448.94	11448.93	2.734	-1
RMS = 1.3 10³ cm⁻¹					P 1	11456.62	11456.58	1.145	-4
					R 1	11492.69			
					R 0	11507.35			
					RMS = 3.7 10² cm⁻¹				
H₂ EF → B 4-1					H₂ EF → B 4-2				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 8	9240.08	9240.09	2.795	1	P 8	8010.99	8010.99	3.871	0
P 7	9428.79	9428.80	2.655	1	P 7	8189.15	8189.10	5.463	-5
P 6	9600.15				P 6	8350.81			
R 6	9751.67	9751.68	0.818	1	P 5	8493.79	8493.79	3.388	0
P 5	9751.84				R 6	8502.33	8502.33	2.637	0
R 5	9880.73	9880.74	1.598	1	P 4	8616.95	8616.95	4.900	0
P 4	9882.52				R 5	8622.69	8622.68	0.705	-1
R 4	9989.00				P 3	8721.61	8721.61	5.522	0
P 3	9993.41	9993.42	3.529	1	R 4	8723.42			
R 3	10074.51	10074.51	1.445	0	P 2	8802.06	8802.06	5.741	0
P 2	10078.65	10078.65	4.182	0	R 3	8802.71	8802.73	3.784	2
R 2	10136.38	10136.37	3.653	0	R 2	8859.79	8859.80	4.585	1
P 1	10140.23	10140.23	2.159	0	P 1	8860.40	8860.39	3.594	-1
R 1	10176.31	10176.30	1.332	0	R 1	8896.47	8896.47	4.019	0
R 0	10189.02	10189.03	3.069	1	R 0	8907.55	8907.55	3.969	0
RMS = 0.7 10² cm⁻¹					RMS = 1.7 10² cm⁻¹				

H₂ EF → B 4-3					H₂ EF → B 4-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 8	6811.410	6811.410	6.214	0	P 5	6074.02	6073.97	1.759	-5
P 7	6979.930	6979.928	4.266	-2	R 6	6097.59			
P 6	7132.801				P 4	6184.24			
P 5	7267.956	7267.956	6.302	0	R 5	6202.91			
R 6	7284.319	7284.323	6.718	4	P 3	6278.29	6278.29	5.857	0
P 4	7384.365	7384.365	9.197	0	R 4	6290.72			
R 5	7396.847	7396.845	4.286	-2	P 2	6350.61	6350.61	5.743	0
P 3	7483.483	7483.481	5.937	-2	R 3	6359.39			
R 4	7490.842				P 1	6403.44	6403.46	2.627	2
P 2	7559.683	7559.681	5.836	-2	R 2	6408.34	6408.35	1.609	1
R 3	7564.582	7564.581	4.433	-1	R 1	6439.52	6439.52	9.966	0
P 1	7615.139	7615.139	5.119	0	R 0	6447.82	6447.82	5.887	0
R 2	7617.413	7617.413	5.696	0	RMS = 1.1 10² cm⁻¹				
R 1	7651.217	7651.215	5.593	-2					
R 0	7660.838	7660.838	4.870	0					
RMS = 1.8 10³ cm⁻¹									
H₂ EF → B 4-5					H₂ EF → B 4-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 6	4790.56				P 5	3781.052	3781.053	3.155	1
P 5	4911.77				R 6	3817.595			
R 6	4942.08	4942.09	2.360	1	P 4	3880.066	3880.062	11.898	-4
P 4	5016.23				R 5	3909.943			
R 5	5040.67	5040.68	1.951	1	P 3	3964.934	3964.932	10.515	-2
P 3	5105.56	5105.56	5.093	0	R 4	3986.542			
R 4	5122.71	5122.75	6.416	4	P 2	4030.241	4030.242	12.992	1
P 2	5174.28	5174.28	9.178	0	R 3	4046.034			
R 3	5186.66	5186.66	0.504	0	P 1	4078.334	4078.333	5.693	-1
P 1	5224.67	5224.66	0.396	-1	R 2	4087.971	4087.972	11.222	1
R 2	5232.01				R 1	4114.412	4114.411	6.797	-1
R 1	5260.75	5260.75	2.690	0	R 0	4120.316	4120.318	5.643	2
R 0	5267.82	5267.82	3.773	0	RMS = 2.2 10³ cm⁻¹				
RMS = 2.0 10² cm⁻¹									
H₂ EF → B 5-0					H₂ EF → B 5-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 9	11360.98	11360.99	5.753	1	P 7	10509.28	10509.27	1.900	-1
P 8	11578.15				P 6	10680.22	10680.21	3.116	-1
P 7	11779.14	11779.23	0.159	9	R 7	10683.00			
R 7	11952.86				R 6	10831.76			
P 6	11961.14				P 5	10832.17	10832.19	0.783	2
R 6	12112.69				R 5	10961.22	10961.20	7.266	-2
P 5	12123.11				P 4	10963.31	10963.31	8.172	0
R 5	12252.16				R 4	11069.07	11069.08	1.879	1
P 4	12262.98	12262.98	1.465	0	P 3	11072.26	11072.26	2.195	0
R 4	12368.74	12368.75	5.970	1	R 3	11154.84	11154.84	0.880	0
P 3	12379.20				P 2	11157.93			
R 3	12461.79				R 2	11217.16	11217.16	1.963	0
P 2	12470.49	12470.54	6.571	5	P 1	11219.51	11219.50	1.631	-1
R 2	12529.72	12529.71	0.607	-1	R 1	11255.16			
P 1	12535.89	12535.98	0.678	9	R 0	11268.31	11268.31	2.239	0
R 1	12571.55	12571.46	2.389	-9	RMS = 1.1 10² cm⁻¹				
R 0	12586.64								
RMS = 4.0 10² cm⁻¹									

H ₂ EF → B 5-2					H ₂ EF → B 5-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 7	9269.644	9269.642	2.006	-2	P 8	7891.505	7891.502	6.408	-3
P 6	9430.873	9430.873	3.692	0	P 7	8060.426			
R 7	9443.360				P 6	8212.866	8212.866	3.392	0
P 5	9574.130	9574.126	1.971	-4	R 7	8234.142			
R 6	9582.422	9582.422	0.112	0	P 5	8348.292	8348.291	2.359	-1
P 4	9697.733	9697.735	2.876	2	R 6	8364.414			
R 5	9703.181	9703.180	2.635	-1	P 4	8465.150	8465.150	3.239	0
P 3	9800.463	9800.460	4.666	-3	R 5	8477.343	8477.340	2.009	-3
R 4	9803.489	9803.487	3.480	-2	P 3	8562.335	8562.330	2.554	-5
P 2	9881.350	9881.350	4.454	0	R 4	8570.906	8570.906	1.421	0
R 3	9883.046	9883.040	2.769	-6	P 2	8638.972	8638.970	3.606	-2
P 1	9939.673	9939.673	3.853	0	R 3	8644.918	8644.916	4.624	-2
R 2	9940.575	9940.575	3.803	0	P 1	8694.416	8694.416	3.096	0
R 1	9975.326	9975.323	2.411	-3	R 2	8698.197	8698.195	3.313	-2
R 0	9986.836	9986.835	2.847	-1	R 1	8730.069	8730.070	3.366	1
RMS= 25 10 ³ cm ⁻¹					R 0	8740.127	8740.126	2.528	-1
					RMS= 2.1 10 ³ cm ⁻¹				
H ₂ EF → B 5-4					H ₂ EF → B 5-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 7	6881.825	6881.832	0.919	7	P 6	5870.627	5870.624	5.163	-3
P 6	7026.135	7026.137	4.220	2	P 5	5992.111	5992.109	1.990	-2
R 7	7055.542	7055.546	0.628	4	R 6	6022.175			
P 5	7154.352				P 4	6097.018	6097.017	5.945	-1
R 6	7177.683				R 5	6121.162			
P 4	7265.027	7265.031	3.698	4	P 3	6184.411	6184.413	4.878	2
R 5	7283.403				R 4	6202.775	6202.775	3.163	0
P 3	7357.141	7357.142	7.713	1	P 2	6253.565	6253.565	6.068	0
R 4	7370.783				R 3	6266.994	6266.998	2.139	4
P 2	7429.900	7429.903	1.053	3	P 1	6303.949	6303.952	4.330	3
R 3	7439.724	7439.727	4.705	3	R 2	6312.790	6312.790	5.007	0
P 1	7482.721				R 1	6339.602	6339.601	3.336	-1
R 2	7489.125				R 0	6347.110			
R 1	7518.374	7518.378	0.033	4	RMS= 1.8 10 ³ cm ⁻¹				
R 0	7527.110								
RMS= 2.8 10 ³ cm ⁻¹									
H ₂ EF → B 5-6					H ₂ EF → B 5-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 6	4746.14				P 6	3653.019	3653.016	8.098	-3
R 7	4790.61				P 5	3762.124	3762.123	0.537	-1
P 5	4861.39				R 6	3804.568			
R 6	4897.69	4897.72	5.614	3	P 4	3856.425	3856.423	7.655	-2
P 4	4960.85	4960.89	6.097	4	R 5	3891.175			
R 5	4990.44				P 3	3935.096	3935.097	5.947	1
P 3	5043.79				R 4	3962.182			
R 4	5066.61	5066.56	6.017	-5	P 2	3997.528	3997.526	13.144	-2
P 2	5109.53	5109.54	5.050	1	R 3	4017.679			
R 3	5126.37	5126.41	3.398	4	P 1	4043.316	4043.316	5.459	0
P 1	5157.61				R 2	4056.753	4056.753	9.968	0
R 2	5168.76				R 1	4078.969	4078.975	3.049	6
R 1	5193.26				R 0	4084.130	4084.130	7.435	0
R 0	5199.61				RMS= 2.0 10 ³ cm ⁻¹				
RMS= 3.6 10 ² cm ⁻¹									

H ₂ EF → B 6-0					H ₂ EF → B 6-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 3	13255.467	13255.468	1.223	1	P 3	11948.525	11948.524	1.162	-1
P 2	13285.969	13285.973	1.235	4	P 2	11973.410	11973.411	1.839	1
P 1	13317.260	13317.260	0.987	0	P 1	12000.873	12000.871	1.632	-2
P 5	13386.447	13386.451	1.225	4	R 0	12083.788	12083.788	1.147	0
P 6	13392.894	13392.894	1.002	0	P 5	12095.512	12095.513	0.734	1
R 0	13402.112	13402.112	1.251	0	P 4	12109.159	12109.160	1.128	1
P 4	13408.834	13408.834	1.231	0	P 6	12111.969	12111.970	1.120	1
R 1	13447.808	13447.809	0.964	1	R 1	12131.421	12131.422	1.126	1
R 2	13675.569	13675.572	1.215	3	R 2	12363.010	12363.011	1.094	1
R 3	13725.127	13725.129	1.377	2	R 3	12418.184	12418.184	1.070	0
R 4	13800.494				R 4	12500.819	12500.819	1.007	0
RMS= 2.1 10 ³ cm ⁻¹					RMS= 0.9 10 ³ cm ⁻¹				
H ₂ EF → B 6-2					H ₂ EF → B 6-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 3	10676.726	10676.724	2.144	-2	P 3	9438.597			
P 2	10696.825	10696.825	4.356	0	P 2	9454.447	9454.444	0.749	-3
P 1	10721.040	10721.040	3.193	0	P 1	9475.783	9475.787	1.020	4
R 0	10802.312	10802.312	3.045	0	R 0	9555.602	9555.603	1.197	1
P 5	10837.469	10837.470	4.117	1	R 1	9606.332	9606.332	1.389	0
P 4	10843.582	10843.583	4.431	1	P 4	9610.999	9610.999	4.817	0
R 1	10851.588				P 5	9611.631	9611.631	0.242	0
P 6	10862.626	10862.624	2.817	-2	P 6	9644.618	9644.620	2.066	2
R 2	11086.425	11086.425	4.230	0	R 2	9844.047	9844.046	5.052	-1
R 3	11146.385	11146.386	3.522	1	R 3	9908.257	9908.259	3.512	2
R 4	11235.242	11235.242	2.287	0	R 4	10002.659	10002.660	2.913	1
RMS= 1.0 10 ³ cm ⁻¹					RMS= 1.3 10 ³ cm ⁻¹				
H ₂ EF → B 6-4					H ₂ EF → B 6-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 3	8233.404				P 3	7060.673	7060.675	13.881	2
P 2	8245.375	8245.375	6.001	0	P 2	7069.040	7069.040	14.229	0
P 1	8264.088	8264.086	4.472	-2	P 1	7085.316	7085.316	15.061	0
R 0	8342.585	8342.589	3.279	4	R 0	7162.585	7162.585	15.013	0
R 1	8394.637	8394.639	3.754	2	R 1	7215.864	7215.865	13.285	1
P 4	8410.877	8410.875	6.096	-2	P 4	7242.868	7242.866	7.423	-2
P 5	8417.691	8417.687	3.970	-4	P 5	7255.450	7255.449	6.655	-1
P 6	8457.887	8457.888	4.605	1	P 6	7302.380			
R 2	8634.975	8634.974	4.505	-1	R 2	7458.640	7458.639	3.921	-1
R 3	8703.063	8703.063	3.778	0	R 3	7530.333	7530.334	5.732	1
R 4	8802.536	8802.536	4.274	0	R 4	7634.528	7634.528	6.177	0
RMS= 2.0 10 ³ cm ⁻¹					RMS= 0.9 10 ³ cm ⁻¹				

H ₂ EF → B 6-6					H ₂ EF → B 6-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ³ cm ⁻¹
P 3	5920.049	5920.049	8.311	0	P 3	4811.359	4811.359	2.992	0
P 2	5925.005	5925.006	11.028	1	P 2	4813.003	4813.001	11.248	-2
P 1	5938.978	5938.976	8.531	-2	P 1	4824.683	4824.680	8.408	-3
R 0	6015.081	6015.082	10.475	1	R 0	4899.605	4899.605	9.074	0
R 1	6069.526	6069.528	7.628	2	R 1	4955.232			
P 4	6106.700	6106.699	7.586	-1	P 4	5002.275			
P 5	6124.727	6124.727	6.402	0	P 5	5025.463	5025.462	9.756	-1
R 2	6314.605	6314.606	7.047	1	P 6	5084.772	5084.769	9.248	-3
R 3	6389.709	6389.708	7.266	-1	R 2	5202.602	5202.600	10.203	-2
R 4	6498.360	6498.359	12.969	-1	R 3	5281.018	5281.015	7.074	-3
RMS=1.1 10 ³ cm ⁻¹					R 4	5393.935			
					RMS= 2.1 10 ³ cm ⁻¹				
H ₂ EF → B 6-8					H ₂ EF → B 6-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ³ cm ⁻¹
P 2	3731.726	3731.725	26.047	-1	P 2	2682.332	2682.333	39.828	1
P 3	3732.729				P 3	2686.642	2686.643	30.779	1
P 1	3741.640	3741.639	4.417	-1	P 1	2689.986	2689.985	29.666	-1
R 0	3815.692	3815.693	5.804	1	R 0	2762.880	2762.881	30.036	1
R 1	3872.189	3872.184	1.200	-5	R 1	2820.534	2820.534	20.721	0
P 4	3927.011	3927.011	15.581	0	P 4	2885.342	2885.338	1.081	-4
P 5	3953.620				P 5	2918.038			
R 2	4121.326	4121.330	11.491	4	R 2	3071.932	3071.934	7.333	2
R 3	4202.389	4202.395	1.355	6	R 3	3156.301			
R 4	4318.670	4318.666	7.625	-4	R 4	3277.002			
RMS= 2.4 10 ³ cm ⁻¹					RMS= 0.8 10 ³ cm ⁻¹				
H ₂ EF → B 7-0					H ₂ EF → B 7-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ³ cm ⁻¹
P 6	12959.043	12959.039	0.855	-4	P 6	11678.12	11678.13	1.834	1
P 5	13103.017	13103.023	0.591	6	P 5	11812.08	11812.08	1.344	0
P 7	13150.066				P 7	11880.20	11880.16	3.442	-4
P 4	13203.600	13203.601	1.089	1	P 4	11903.92	11903.93	2.542	1
R 4	13366.642	13366.643	0.593	1	R 4	12066.97	12066.97	0.981	0
R 3	13441.697	13441.698	0.980	1	R 3	12134.75	12134.75	1.279	0
P 8	13461.443				R 2	12157.78	12157.77	1.230	0
P 3	13468.303	13468.308	0.924	5	P 3	12161.36			
R 2	13470.335	13470.338	1.203	3	P 8	12203.47			
P 2	13538.203				P 2	12225.64	12225.64	0.834	0
P 1	13596.227				P 1	12279.84	12279.86	1.962	2
R 5	13623.081				R 5	12332.15			
R 0	13654.346	13654.346	1.226	0	R 0	12336.02	12336.08	3.294	6
R 1	13660.645	13660.647	1.609	2	R 1	12344.26	12344.25	3.719	-1
R 6	13995.981				R 6	12715.06			
RMS= 2.8 10 ³ cm ⁻¹					RMS= 2.9 10 ³ cm ⁻¹				

H ₂ EF → B 7-2					H ₂ EF → B 7-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 6	10428.774	10428.772	1.931	-2	R 3	9624.828			
P 5	10554.040	10554.040	3.061	0	R 2	9638.812			
P 4	10638.348	10638.348	2.737	0	P 3	9651.434	9651.433	4.573	-1
P 7	10640.566				P 2	9706.681	9706.683	5.054	2
R 4	10801.390	10801.394	2.636	4	P 1	9754.750	9754.749	4.738	-1
R 3	10862.956	10862.954	3.605	-2	P 8	9774.797			
R 2	10881.190	10881.190	2.179	0	R 0	9807.836	9807.834	4.829	-2
P 3	10889.562	10889.562	4.141	0	R 1	9819.168	9819.165	5.100	-3
P 2	10949.059	10949.059	4.277	0	RMS= 1.8 10 ³ cm ⁻¹				
P 8	10974.380								
P 1	11000.007	11000.008	2.697	1					
R 0	11054.546	11054.547	4.128	1					
R 1	11064.425	11064.424	3.252	-1					
R 5	11074.103	11074.105	0.924	2					
R 6	11465.713								
RMS= 1.3 10 ³ cm ⁻¹									
H ₂ EF → B 7-4					H ₂ EF → B 7-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 6	8024.036	8024.034	2.281	-2	P 6	6868.528	6868.531	9.503	3
P 5	8134.262	8134.263	2.190	1	P 5	6972.021	6972.022	11.571	1
P 4	8205.642				P 4	7037.633	7037.634	13.515	0
P 7	8252.747				R 4	7200.676	7200.677	9.398	1
R 4	8368.685	8368.684	3.471	-1	R 3	7246.904	7246.908	8.519	4
R 3	8419.634	8419.634	0.818	0	R 2	7253.405	7253.404	14.161	-1
R 2	8429.740				P 3	7273.510			
P 3	8446.240	8446.233	4.953	-7	P 2	7321.274	7321.277	9.627	3
P 2	8497.609	8497.609	5.263	0	P 1	7364.283	7364.283	3.481	1
P 1	8543.055	8543.056	4.289	1	R 0	7414.819			
R 0	8594.819	8594.820	4.044	1	R 1	7428.701			
R 1	8607.473	8607.472	3.809	-1	R 5	7492.084			
R 5	8654.325				R 6	7905.467			
R 6	9060.974				RMS= 2.0 10 ³ cm ⁻¹				
RMS= 3.1 10 ³ cm ⁻¹									
H ₂ EF → B 7-6					H ₂ EF → B 7-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 6	5744.043	5744.044	9.096	1	P 6	4650.920	4650.919	4.162	-1
P 5	5841.298	5841.296	7.058	-2	P 5	4742.034			
P 4	5901.465	5901.464	8.560	-1	P 4	4797.040			
P 7	5987.812	5987.806	1.987	-6	R 4	4960.083			
R 4	6064.508	6064.508	6.829	0	R 2	4997.368			
R 3	6106.280	6106.276	2.673	-4	R 3	4997.589			
R 2	6109.370	6109.369	5.066	-1	P 3	5024.195			
P 3	6132.886	6132.885	1.401	-1	P 2	5065.237	5065.236	10.607	-1
P 2	6177.239	6177.237	13.876	-2	P 1	5103.650	5103.648	10.089	-2
P 1	6217.945				R 0	5151.839	5151.840	10.069	1
R 0	6267.315	6267.316	3.391	1	R 1	5168.068	5168.065	9.571	-3
R 1	6282.363	6282.359	5.429	-4	R 5	5262.097			
R 5	6361.361				R 6	5687.859			
R 6	6780.981				RMS= 1.7 10 ³ cm ⁻¹				
RMS= 2.2 10 ³ cm ⁻¹									

H ₂ EF → B 7-8					H ₂ EF → B 7-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 5	3670.191	3670.195	26.672	4	P 5	2634.609	2634.608	1.696	-1
P 4	3721.776				P 4	2680.108	2680.108	34.792	0
R 4	3884.819				R 4	2843.150	2843.148	5.785	-2
R 2	3916.092				R 2	2866.698	2866.698	32.443	0
R 3	3918.960				R 3	2872.872	2872.878	0.448	6
P 3	3945.566	3945.571	4.566	5	P 3	2899.478	2934.568	31.420	2
P 2	3983.960	3983.964	14.470	4	P 2	2934.566			
P 1	4020.607	4020.609	2.131	2	P 1	2968.953	2968.955	2.630	2
R 0	4067.926	4067.928	9.290	2	R 0	3015.114	3015.114	17.823	0
R 1	4085.025	4085.031	6.712	6	R 1	3033.371	3154.672		
R 5	4190.254				R 5	3154.672			
RMS= 4.0 10 ³ cm ⁻¹					RMS= 1.8 10 ³ cm ⁻¹				

H ₂ EF → B 8-0					H ₂ EF → B 8-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 4	14242.02	14241.98	0.610	-4	P 6	12697.106	12697.107	0.876	1
P 3	14345.54				P 5	12827.397	12827.396	0.897	-1
R 4	14385.63				P 4	12942.345	12942.346	0.647	1
P 2	14427.70		0.997	0	P 3	13038.597	13038.590	0.760	-7
R 3	14457.01				R 4	13085.955	13085.955	0.301	0
P 1	14488.25	14537.87	1.055	-1	P 2	13115.140	13115.142	0.978	2
R 2	14508.76				R 3	13150.068	13171.864	0.951	-3
R 1	14537.88				P 1	13171.867			
R 0	14543.84		0.924	1	R 2	13196.196	13196.198	0.937	2
						R 1	13221.494	13225.520	1.114
				R 0	13225.518				
RMS= 1.7 10 ² cm ⁻¹					RMS= 2.9 10 ³ cm ⁻¹				

H ₂ EF → B 8-2					H ₂ EF → B 8-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	11447.763	11447.759	2.123	-4	P 6	10229.76	10229.77	3.903	1
P 5	11569.354	11569.349	1.621	-5	P 5	10343.52	10343.51	2.204	-1
P 4	11676.768	11676.763	2.385	-5	P 4	10444.19	10444.19	3.601	0
P 3	11766.798	11766.802	1.709	4	P 3	10528.67	10528.67	2.706	0
R 4	11820.379	11820.382	1.244	3	R 4	10587.80	10596.17	3.950	-1
P 2	11838.555	11838.553	2.209	-2	P 2	10596.18			
R 3	11878.269	11878.269	1.158	0	R 3	10640.14	10640.15	0.558	1
P 1	11892.034	11892.028	0.387	-6	P 1	10646.78	10646.78	4.701	0
R 2	11919.611	11919.614	1.424	3	R 2	10677.23	10677.17	1.914	-6
R 1	11941.661	11944.044	1.374	2	R 1	10696.40	10696.40	1.616	0
R 0	11944.042				R 0	10697.33	10697.31	5.255	-2
RMS= 3.7 10 ³ cm ⁻¹					RMS= 1.8 10 ² cm ⁻¹				

H ₂ EF → B 8-4					H ₂ EF → B 8-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	9149.575	9149.577	3.727	2	P 6	7887.52	7887.52	1.577	0
P 4	9244.063	9244.062	5.222	1	P 5	7987.33			
P 3	9323.476	9323.475	3.867	-1	P 4	8076.05	8076.05	0.647	0
P 2	9387.105	9387.104	5.703	-1	P 3	8150.75	8150.74	4.363	-1
R 4	9387.673	9387.677	4.452	4	P 2	8210.77	8210.80	1.520	3
R 3	9434.947				R 4	8219.66	8219.71	0.059	5
P 1	9435.082	9435.078	1.800	-4	P 1	8256.31			
R 2	9468.161	9468.161	5.239	0	R 3	8262.22	8262.16	1.268	-6
R 0	9484.315	9484.313	5.443	-2	R 2	8291.83			
R 1	9484.709	9484.709	5.267	0	R 0	8304.32	8304.25	3.955	-7
RMS= 20 10 ³ cm ⁻¹					R 1	8305.94	8305.91	13.016	-3
					RMS= 34 10 ² cm ⁻¹				
H ₂ EF → B 8-6					H ₂ EF → B 8-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	6763.031				P 4	5835.46	5835.46	7.042	0
P 5	6856.611	6856.611	4.436	0	P 3	5901.43	5901.46	8.405	3
P 4	6939.886	6939.887	6.088	1	P 2	5954.73	5954.73	6.646	0
P 3	7010.122	7010.118	6.659	-4	R 4	5979.07	5979.10	1.992	3
P 2	7066.736	7066.739	9.214	3	P 1	5995.68			
R 4	7083.496	7083.494	4.989	-2	R 3	6012.90	6012.91	4.712	1
P 1	7109.972	7109.971	7.988	-1	R 2	6035.79	6035.79	5.972	0
R 3	7121.593	7121.594	0.379	1	R 0	6041.33	6041.33	6.092	0
R 2	7147.791	7147.786	10.630	-5	R 1	6045.30	6045.30	0.796	0
R 0	7156.811	7156.805	10.069	-6	RMS= 15 10 ² cm ⁻¹				
R 1	7159.599	7159.602	12.291	3					
RMS= 39 10 ³ cm ⁻¹									
H ₂ EF → B 8-8					H ₂ EF → B 9-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 4	4760.197	4760.197	11.272	0	P 6	14776.15	14776.16	0.836	1
P 3	4822.802	4822.801	11.050	-1	P 5	14884.35	14884.35	0.489	0
P 2	4873.457	4873.458	11.176	1	P 4	14970.46	14970.45	0.743	-1
R 4	4903.807	4903.804	2.635	-3	P 3	15039.29	15039.27	0.235	-2
P 1	4912.634	4912.630	6.666	-4	P 2	15095.61	15095.60	0.257	-1
R 3	4934.273				P 1	15142.57			
R 2	4954.512	4954.510	9.349	-2	R 4	15183.75			
R 0	4957.423	4957.424	10.954	1	R 0	15211.76			
R 1	4962.262	4962.266	1.978	4	R 3	15223.03			
RMS= 21 10 ³ cm ⁻¹					R 1	15231.63			
					R 2	15237.20			
					RMS= 09 10 ² cm ⁻¹				

H ₂ EF → B 9-1					H ₂ EF → B 9-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 6	13495.229	13495.233	1.074	4	P 6	12245.885	12245.885	1.009	0
P 5	13593.413	13593.420	0.579	7	P 5	12335.370	12335.373	0.777	3
P 4	13670.788	13670.789	1.398	1	P 4	12405.211	12405.212	1.069	1
P 3	13732.344	13732.346	1.417	2	P 3	12460.545			
P 2	13783.053	13783.055	1.422	2	P 2	12506.468	12506.469	1.091	1
P 1	13826.187	13826.191	1.361	4	P 1	12546.354	12546.353	1.053	-1
R 4	13884.078	13884.072	1.467	-6	R 0	12611.955	12611.955	1.069	0
R 0	13893.431	13893.429	1.673	-2	R 4	12618.501	12618.503	0.969	2
R 1	13915.241	13915.241	1.567	0	R 1	12635.408	12635.409	1.033	1
R 3	13916.085				R 3	12644.286	12644.286	0.919	0
R 2	13924.639	13924.639	2.168	0	R 2	12648.054	12648.055	1.026	1
RMS= 3.1 10 ³ cm ⁻¹					RMS= 1.1 10 ³ cm ⁻¹				
H ₂ EF → B 9-3					H ₂ EF → B 9-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	11027.878	11027.878	3.796	0	P 6	9841.15	9841.13	3.086	-2
P 5	11109.532	11109.538	3.981	6	P 5	9915.59	9915.54	0.126	-5
P 4	11172.628	11172.629	4.172	1	P 4	9972.51	9972.44	2.254	-7
P 3	11222.417	11222.417	3.991	0	P 3	10017.22	10017.26	4.352	4
P 2	11264.090	11264.091	4.137	0	P 2	10055.02	10055.02	2.837	0
P 1	11301.097	11301.101	3.757	4	P 1	10089.40			
R 0	11365.245	11365.247	4.120	2	R 0	10152.23			
R 4	11385.918	11385.916	2.426	-2	R 1	10178.46			
R 1	11390.151	11390.150	4.058	-1	R 4	10185.80	10185.79	3.344	-1
R 2	11405.676	11405.677	3.530	1	R 2	10196.60	10196.62	5.355	2
R 3	11406.158	11406.158	1.240	0	R 3	10200.96	10200.95	1.756	-1
RMS= 2.5 10 ³ cm ⁻¹					RMS= 2.9 10 ² cm ⁻¹				
H ₂ EF → B 9-5					H ₂ EF → B 9-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	8685.639	8685.637	4.784	-2	P 6	7561.15	7561.11	6.021	-4
P 5	8753.351	8753.349	4.037	-2	P 5	7622.63			
P 4	8804.497	8804.499	5.832	2	P 4	7668.33	7668.32	3.906	-1
P 3	8844.493	8844.490	5.828	-3	P 3	7703.87	7703.87	4.806	0
P 2	8878.683	8878.682	5.891	-1	P 2	7734.65	7734.62	4.065	-3
P 1	8910.630	8910.628	5.723	-2	P 1	7764.29	7764.30	6.551	1
R 0	8972.228	8972.226	5.750	-2	R 0	7824.72	7824.73	6.853	1
R 1	8999.684	8999.680	5.671	-4	R 1	7853.35	7853.32	5.181	-3
R 4	9017.787				R 2	7876.23	7876.24	2.727	1
R 2	9020.269	9020.269	6.545	0	R 4	7881.62			
R 3	9028.234	9028.238	4.186	4	R 3	7887.61			
RMS= 2.5 10 ³ cm ⁻¹					RMS= 2.3 10 ² cm ⁻¹				

H ₂ EF → B 9-7					H ₂ EF → B 9-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 4	6563.90	6563.86	5.425	-4	P 4	5488.640	5488.635	7.587	-5
P 3	6595.18				P 3	5516.549	5516.548	8.227	-1
P 2	6622.65	6622.65	4.412	0	P 2	5541.370	5541.369	8.733	-1
P 1	6650.00	6650.07	0.355	7	P 1	5566.954	5566.952	7.608	-2
R 0	6709.25	6709.25	1.967	0	R 0	5625.336	5625.336	8.244	0
R 1	6739.05				R 1	5656.008	5656.006	5.396	-2
R 2	6764.23				R 2	5682.955	5682.954	6.616	-1
R 4	6777.19				R 3	5700.290	5700.289	3.530	-1
R 3	6778.92				R 4	5701.930	5701.929	3.969	-1
RMS= 34 10 ² cm ⁻¹					RMS= 20 10 ³ cm ⁻¹				
H ₂ EF → B 9-9					H ₂ EF → B 9-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 5	4415.939	4415.940	8.055	1	P 3	3451.327	3451.332	10.371	5
P 4	4446.971	4446.972	12.956	1	P 2	3471.473	3471.470	16.002	-3
P 3	4470.462	4470.464	12.615	2	P 1	3493.680			
P 2	4491.976	4491.976	13.096	0	R 0	3550.321	3550.322	5.164	1
P 1	4515.300	4515.300	12.397	0	R 1	3582.734			
R 0	4572.523	4572.524	12.210	0	R 2	3613.058	3613.062	0.555	4
R 1	4604.354	4604.355	12.676	1	R 3	3635.068			
R 2	4633.561	4633.561	11.903	0	RMS= 3.7 10 ³ cm ⁻¹				
R 3	4654.202	4654.202	8.622	0					
R 4	4660.261	4660.262	9.378	1					
RMS= 10 10 ³ cm ⁻¹									
H ₂ EF → B 9-11					H ₂ EF → B 10-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	2450.306	2450.304	10.613	-2	P 4	15535.99			
P 3	2466.824	2466.830	98.495	6	P 3	15607.87			
P 2	2483.037	2483.039	8.463	2	P 2	15671.57			
P 1	2502.795				P 1	15723.81			
R 0	2558.229	2558.233	9.898	4	R 0	15787.72	15787.77	9.601	5
R 1	2591.849	2591.850	1.517	1	R 4	15787.75	15787.77	9.601	2
R 2	2624.623	2624.617	3.623	-6	R 3	15798.25	15798.25	9.401	0
R 3	2650.565				R 1	15800.21	15800.21	16.346	0
R 4	2663.596				R 2	15802.72	15802.75	13.262	3
RMS= 54 10 ³ cm ⁻¹					RMS= 23 10 ² cm ⁻¹				

H ₂ EF → B 10-1					H ₂ EF → B 10-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 4	14236.311				P 5	12910.591	12910.592	1.500	1
P 3	14300.925	14300.924	0.960	-1	P 4	12970.735	12970.736	1.459	1
P 2	14359.015	14359.007	1.443	-8	P 3	13029.126	13029.130	1.008	4
P 1	14407.427	14407.425	1.073	-2	P 2	13082.430	13082.432	1.034	2
R 0	14469.393	14469.391	1.126	-2	P 1	13127.594	13127.598	0.993	4
R 1	14483.822	14483.826	1.109	4	R 0	13187.917	13187.917	1.045	0
R 4	14488.077	14488.077	0.960	0	R 1	13203.989	13203.994	0.362	5
R 2	14490.162	14490.161	1.072	-1	R 2	13213.577	13213.576	1.015	-1
R 3	14491.306	14491.306	0.602	0	R 3	13219.507	13219.501	0.100	-6
RMS= 3.6 10 ⁻³ cm ⁻¹					R 4	13222.501			
					RMS= 2.3 10 ⁻³ cm ⁻¹				
H ₂ EF → B 10-3					H ₂ E → B 10-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 6	11631.877	11631.879	2.265	2	P 6	10445.146	10445.144	2.550	-2
P 5	11684.753	11684.757	1.247	4	P 5	10490.813	10490.811	4.145	-2
P 4	11738.152	11738.151	2.785	-1	P 4	10538.029	10538.029	4.552	0
P 3	11790.998	11790.996	2.526	-2	P 3	10585.804	10585.806	4.727	2
P 2	11840.052	11840.052	2.217	0	P 2	10630.980	10630.980	4.702	0
P 1	11882.337	11882.341	0.803	4	P 1	10670.642	10670.646	3.874	4
R 0	11941.207	11941.207	1.108	0	R 0	10728.190	10728.189	4.669	-1
R 1	11958.732	11958.733	1.164	1	R 1	10747.038	10747.039	4.095	1
R 2	11971.199	11971.198	1.186	-1	R 2	10762.127	10762.127	4.488	0
R 3	11981.379	11981.380	1.181	1	R 3	10776.185	10776.185	1.939	0
R 4	11989.918	11989.917	1.084	-1	R 4	10789.795			
RMS= 1.8 10 ⁻³ cm ⁻¹					RMS= 1.5 10 ⁻³ cm ⁻¹				
H ₂ EF → B 10-5					H ₂ EF → B 10-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 6	9289.639	9289.639	4.148	0	P 5	8197.849	8197.846	2.277	-3
P 5	9328.572	9328.572	3.679	0	P 4	8233.852	8233.852	6.459	0
P 4	9370.020	9370.024	4.089	4	P 3	8272.450	8272.453	5.752	3
P 3	9413.074	9413.077	1.958	3	P 2	8310.610	8310.610	6.448	0
P 2	9454.645	9454.649	0.319	4	P 1	8345.532	8345.533	6.210	1
P 1	9491.870	9491.867	2.332	-3	R 0	8400.686	8400.686	6.041	0
R 0	9548.190	9548.186	5.294	-4	R 1	8421.927	8421.923	2.346	-4
R 1	9568.265	9568.264	4.756	-1	R 2	8441.757	8441.756	5.710	-1
R 2	9585.792	9585.791	5.061	-1	R 3	8462.831	8462.836	5.381	5
R 3	9603.455	9603.458	4.280	3	R 4	8485.618	8485.618	4.181	0
R 4	9621.786	9621.790	5.005	4	RMS= 2.6 10 ⁻³ cm ⁻¹				
RMS= 2.6 10 ⁻³ cm ⁻¹									

H₂ EF → B 10-7					H₂ EF → B 10-9				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³ cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³ cm⁻¹
P 6	7072.031	7072.033	4.540	2	P 5	4991.160	4991.160	2.860	0
P 5	7098.585				P 4	5012.494	5012.495	10.601	1
P 4	7129.427	7129.426	11.476	-1	P 3	5039.043			
P 3	7163.759	7163.759	8.549	0	P 2	5067.937	5067.938	10.156	1
P 2	7198.608	7198.609	11.463	1	P 1	5096.540	5096.540	2.555	0
P 1	7231.237	7231.235	1.747	-2	R 0	5148.485	5148.486	8.454	1
R 0	7285.210	7285.208	9.561	-2	R 1	5172.935			
R 1	7307.632	7307.635	3.578	3	R 2	5199.084	5199.087	8.352	3
R 2	7329.755	7329.749	5.515	-6	R 3	5229.423	5229.422	1.235	-1
R 3	7354.140	7354.145	1.441	5	R 4	5264.261	5264.263	5.272	2
R 4	7381.193	7381.195	1.023	2	RMS= 1.4 10³ cm⁻¹				
RMS= 2.4 10³ cm⁻¹									
H₂ EF → B 10-10					H₂ EF → B 10-11				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³ cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³ cm⁻¹
P 4	3993.137	3993.138	15.150	1	P 5	3003.017	3003.026	1.967	9
P 3	4019.908	4019.906	14.479	-2	P 4	3015.829	3015.831	26.127	2
P 2	4047.435	4047.436	15.705	1	P 3	3035.405	3035.408	20.892	3
P 1	4074.920	4074.922	14.768	2	P 2	3058.999	3058.999	28.027	0
R 0	4126.283	4126.286	14.949	3	P 1	3084.035	3084.037	16.884	2
R 1	4151.315	4151.318	12.605	3	R 0	3134.191			
R 2	4178.582	4178.583	12.488	1	R 1	3160.431			
R 3	4210.289	4210.285	6.357	-4	R 2	3190.146			
R 4	4244.903	4244.907	10.538	4	R 3	3225.786			
RMS= 2.5 10³ cm⁻¹					R 4	3267.595			
					RMS= 2.4 10³ cm⁻¹				
H₂ EF → B 10-12					H₂ EF → B 11-2				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³ cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³ cm⁻¹
P 5	2060.346	2060.352	73.348	6	P 6	13508.756	13508.757	1.064	1
P 3	2066.146	2066.151	64.683	5	P 5	13602.192	13602.195	0.728	3
P 4	2076.575	2076.571	2.375	-4	P 4	13688.038	13688.040	1.404	2
P 2	2096.085				P 3	13763.024	13763.026	1.392	2
P 1	2121.619				P 2	13825.441			
R 0	2171.695	2171.698	3.664	3	P 1	13874.486	13874.491	1.308	5
R 1	2198.014	2198.009	0.247	-5	R 4	13881.372	13881.374	1.026	2
R 2	2227.232	2227.229	2.096	-3	R 3	13911.108	13911.105	1.409	-3
R 3	2256.526	2256.527	0.023	1	R 2	13930.881			
R 4	2328.341				R 0	13930.928			
RMS= 5.6 10³ cm⁻¹					R 1	13937.887	13937.888	1.376	1
					RMS= 2.6 10³ cm⁻¹				

H ₂ EF → B 11-3					H ₂ EF → B 11-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 6	12290.75	12290.75	3.561	0	P 6	11104.018	11104.019	3.909	1
P 5	12376.35	12376.37	0.453	2	P 5	11182.414	11182.413	2.894	-1
P 4	12455.46				P 4	11255.333	11255.335	4.496	2
P 3	12524.90				P 3	11319.702	11319.698	3.893	-4
P 2	12583.06	12583.07	3.078	1	P 2	11373.991	11373.991	4.026	0
P 1	12629.23				P 1	11417.534	11417.534	2.437	0
R 4	12648.79				R 4	11448.666	11448.668	2.021	2
R 3	12672.98	12672.98	0.479	0	R 3	11467.786	11467.784	1.642	-2
R 0	12684.22				R 0	11471.201	11471.202	3.637	1
R 2	12688.50	12688.50	0.684	0	R 2	11479.431	11479.427	3.089	-4
R 1	12692.63				R 1	11480.935	11480.935	2.158	0
RMS= 0.8 10 ² cm ⁻¹					RMS= 2.2 10 ³ cm ⁻¹				
H ₂ EF → B 11-5					H ₂ EF → B 11-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 5	10020.173	10020.176	4.022	3	P 5	8889.450	8889.449	3.498	-1
P 4	10087.324	10087.322	4.168	-2	P 4	8951.156	8951.152	4.890	-4
P 3	10146.972	10146.971	4.600	-1	P 3	9006.348	9006.350	4.997	2
P 2	10197.656	10197.656	4.894	0	P 2	9053.621	9053.623	6.668	2
P 1	10238.762	10238.760	4.742	-2	P 1	9092.424	9092.425	5.287	1
R 4	10280.658	10280.663	0.891	5	R 0	9143.697	9143.700	5.920	3
R 0	10291.201	10291.197	4.768	-4	R 4	9144.490	9144.489	3.997	-1
R 3	10295.056	10295.056	0.899	0	R 3	9154.432	9154.431	3.042	-1
R 1	10302.163	10302.168	1.747	5	R 1	9155.825			
R 2	10303.096	10303.098	2.485	2	R 2	9159.061	9159.061	5.612	0
RMS= 2.5 10 ³ cm ⁻¹					RMS= 2.1 10 ³ cm ⁻¹				
H ₂ EF → B 11-7					H ₂ EF → B 11-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	7730.902	7730.901	6.048	-1	P 4	6771.47	6771.46	4.615	-1
P 5	7790.186	7790.186	6.454	0	P 3	6819.03	6819.03	0.837	0
P 4	7846.731	7846.728	6.789	-3	P 2	6860.34	6860.31	10.268	-3
P 3	7897.657	7897.657	13.309	0	P 1	6895.09			
P 2	7941.619	7941.616	6.251	-3	R 0	6944.31	6944.34	4.070	3
P 1	7978.129	7978.128	6.942	-1	R 1	6958.49			
R 0	8028.221	8028.223	6.739	2	R 4	6964.80	6964.78	5.203	-2
R 4	8040.065	8040.064	6.233	-1	R 2	6965.78			
R 1	8041.530	8041.526	6.489	-4	R 3	6967.11			
R 3	8045.741	8045.742	7.932	1	RMS= 2.4 10 ² cm ⁻¹				
R 2	8047.059	8047.057	6.808	-2					
RMS= 1.8 10 ³ cm ⁻¹									

H ₂ EF → B 11-9					H ₂ EF → B 11-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 4	5729.80	5729.77	9.098	-3	P 4	4710.441	4710.441	8.934	0
P 3	5772.94	5772.94	4.432	0	P 3	4753.806	4753.810	11.417	4
P 2	5810.95	5810.97	0.633	2	P 2	4790.446	4790.448	6.088	2
P 1	5843.43	5843.41	5.526	-2	P 1	4821.812			
R 0	5891.50				R 0	4869.294	4869.292	10.045	-2
R 1	5906.83	5906.80	4.251	-3	R 1	4885.212	4885.207	5.450	-5
R 2	5916.39				R 2	4895.886	4895.887	7.488	1
R 3	5921.02				R 3	4901.890	4901.879	0.823	-9
R 4	5923.13	5923.17	3.533	4	R 4	4903.775			
RMS= 2.9 10 ² cm ⁻¹					RMS= 3.4 10 ³ cm ⁻¹				
H ₂ EF → B 11-11					H ₂ EF → B 11-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 5	3694.618	3694.619	17.379	1	P 4	2793.879	2793.876	20.081	-3
P 4	3733.133	3733.132	29.048	-1	P 3	2800.043	2800.041	4.116	-2
P 3	3769.303	3769.306	23.211	3	P 2	2839.096	2839.095	32.535	1
P 2	3802.010	3802.010	26.586	0	P 1	2868.510	2868.510	2.993	0
P 1	3830.927	3830.926	15.895	-1	R 0	2914.706	2914.707	4.583	1
R 0	3877.202	3877.201	16.293	-1	R 1	2931.911			
R 1	3894.328	3894.330	13.252	2	R 2	2944.535	2944.539	3.282	4
R 2	3907.450	3907.449	15.133	-1	R 3	2948.127			
R 3	3917.387	3917.394	0.273	7	R 4	2987.212			
R 4	3926.466	3926.468	10.398	2	RMS= 1.9 10 ³ cm ⁻¹				
H ₂ EF → B 12-1					H ₂ EF → B 12-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 4	15679.27	15679.19	0.097	-8	P 6	14237.445	14237.445	0.581	0
P 3	15754.91	15754.94	1.355	3	P 5	14331.943	14331.938	1.044	-5
P 2	15817.42	15817.43	12.947	1	P 4	14413.697	14413.697	0.787	0
P 1	15867.12	15867.11	13.282	-1	P 3	14483.110	14483.108	1.083	-2
R 4	15875.64	15875.61	10.874	-3	P 2	14540.831	14540.829	1.109	-2
R 3	15912.66	15912.68	8.748	2	P 1	14587.286	14587.283	1.175	-3
R 0	15927.79	15927.79	5.178	0	R 4	14610.061	14610.058	0.989	-3
R 2	15933.12	15933.14	3.893	2	R 3	14640.859	14640.858	1.073	-1
R 1	15937.81	15937.80	3.901	-1	R 0	14646.318	14646.316	1.196	-2
RMS= 1.7 10 ² cm ⁻¹					R 2	14656.539	14656.540	1.054	1
					R 1	14657.973	14657.971	0.737	-2
					RMS= 2.3 10 ³ cm ⁻¹				

H ₂ EF → B 12-3					H ₂ EF → B 12-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 6	13019.438	13019.437	0.845	-1	P 6	11832.706	11832.715	4.594	9
P 5	13106.105				P 5	11912.165	11912.160	1.210	-5
P 4	13181.114				P 4	11980.991	11980.991	1.138	0
P 3	13244.982	13244.983	0.949	1	P 3	12039.788	12039.788	1.755	0
P 2	13298.453	13298.451	0.980	-2	P 2	12089.381	12089.379	1.122	-2
P 1	13342.029	13342.030	1.221	1	P 1	12130.334	12130.333	1.140	-1
R 4	13377.478	13377.470	0.529	-8	R 4	12177.355	12177.353	1.000	-2
R 0	13399.608	13399.606	1.041	-2	R 0	12186.591	12186.594	1.109	3
R 3	13402.731	13402.727	0.394	-4	R 3	12197.537	12197.540	1.239	3
R 1	13412.716	13412.719	1.114	3	R 1	12201.021	12201.020	1.040	-1
R 2	13414.161	13414.159	0.797	-3	R 2	12205.089	12205.090	1.119	1
RMS= 3.0 10 ³ cm ⁻¹					RMS= 4.7 10 ³ cm ⁻¹				
H ₂ EF → B 12-5					H ₂ EF → B 12-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	10677.20	10677.17	2.261	-3	P 6	9552.71	9552.75	2.260	4
P 5	10749.92	10749.89	3.045	-3	P 5	9619.20			
P 4	10812.98	10812.98	4.375	0	P 4	9676.81	9676.82	3.463	1
P 3	10867.06	10867.06	4.413	1	P 3	9726.43	9726.44	2.190	1
P 2	10913.05	10913.05	4.175	0	P 2	9769.01	9769.01	5.527	0
P 1	10951.56	10951.56	4.435	0	P 1	9805.22			
R 0	11006.59	11006.59	4.022	0	R 0	9859.09	9859.09	1.743	0
R 4	11009.35	11009.29	0.454	-6	R 4	9873.18			
R 1	11022.25	11022.25	3.896	0	R 1	9875.91	9875.97	0.775	6
R 3	11024.81	11024.83	2.345	2	R 3	9884.18	9884.14	12.950	-4
R 2	11028.75	11028.75	4.021	0	R 2	9884.72			
RMS= 1.6 10 ² cm ⁻¹					RMS= 3.0 10 ² cm ⁻¹				
H ₂ EF → B 12-7					H ₂ EF → B 12-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 6	8459.591	8459.592	4.005	1	P 4	7497.125	7497.124	8.786	-1
P 5	8519.937	8519.937	4.363	0	P 3	7539.114	7539.113	7.176	-1
P 4	8572.389	8572.389	5.196	0	P 2	7575.732	7575.730	8.917	-2
P 3	8617.743	8617.738	4.458	-5	P 1	7607.886	7607.886	8.994	0
P 2	8657.009	8657.007	5.960	-2	R 0	7659.698	7659.698	6.946	0
P 1	8690.929	8690.926	5.241	-3	R 1	7678.573	7678.574	6.128	1
R 0	8743.611	8743.609	5.304	-2	R 2	7691.441	7691.442	6.450	1
R 1	8761.616	8761.617	5.194	1	R 4	7693.489	7693.484	4.177	-5
R 4	8768.754	8768.754	4.229	0	R 3	7696.863	7696.864	4.543	1
R 2	8772.717	8772.716	5.269	-1	RMS= 1.9 10 ³ cm ⁻¹				
R 3	8775.492	8775.491	2.585	-1					
RMS= 1.9 10 ³ cm ⁻¹									

H ₂ EF → B 12-9					H ₂ EF → B 12-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 3	6493.03				P 4	5436.10	5436.11	21.007	1
P 2	6526.34	6526.33	9.385	-1	P 3	5473.89	5473.93	7.172	4
P 1	6556.23				P 2	5505.84			
R 0	6606.89				P 1	5534.61			
R 1	6626.92	6626.96	10.223	4	R 0	5584.68			
R 2	6642.05	6642.01	10.181	-4	R 1	5605.30			
R 3	6650.78	6650.74	0.984	-4	R 2	5621.54			
R 4	6651.82				R 3	5631.64	5631.67	8.508	3
RMS= 3.0 10 ² cm ⁻¹					R 4	5632.46			
					RMS= 2.2 10 ² cm ⁻¹				
H ₂ EF → B 12-11					H ₂ EF → B 12-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 5	4424.37	4424.41	1.063	4	P 5	3481.698	3481.695	1.802	-3
P 4	4458.79	4458.79	6.863	0	P 4	3519.537	3519.537	28.081	0
P 3	4489.39	4489.42	0.670	3	P 3	3520.129	3520.131	21.899	2
P 2	4517.40	4517.40	12.768	0	P 2	3554.486	3554.484	32.919	-2
P 1	4543.73	4543.71	8.371	-2	P 1	3581.310	3581.308	20.023	-2
R 0	4592.59	4592.59	8.832	0	R 0	3630.096	3630.094	30.974	-2
R 1	4614.41				R 1	3651.997	3651.996	24.177	-1
R 2	4633.11	4633.11	10.683	0	R 2	3670.194	3670.195	26.672	1
R 3	4647.14				R 3	3677.878	3677.877	0.324	-1
R 4	4655.16	4655.16	1.648	0	R 4	3715.901	3715.899	13.987	-3
RMS= 0.9 10 ² cm ⁻¹					RMS= 1.7 10 ³ cm ⁻¹				
H ₂ EF → B 12-13					H ₂ EF → B 13-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 4	2578.716	2578.717	14.732	1	P 6	16175.50	16175.45	0.119	-5
P 3	2603.062	2603.055	2.544	-7	P 5	16270.46			
P 2	2626.299	2626.299	26.302	0	P 4	16354.57	16354.58	0.601	1
P 1	2649.432				P 3	16427.95	16427.93	0.265	-2
R 0	2696.682	2696.676	1.892	-5	P 2	16489.96	16489.93	1.081	-3
R 1	2720.119				P 1	16539.75			
R 2	2742.007				R 4	16564.35			
R 3	2760.811				R 3	16593.13	16593.08	0.997	-5
R 4	2775.080				R 0	16600.34	16600.34	1.316	0
RMS= 2.1 10 ³ cm ⁻¹					R 2	16608.43	16608.43	0.693	0
					R 1	16610.85			
					RMS= 2.7 10 ² cm ⁻¹				

H ₂ EF → B 13-3					H ₂ EF → B 13-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	13708.15	13708.17	1.174	2	P 4	12656.29	12656.37	0.705	8
P 5	13786.57	13786.57	1.223	0	P 3	12712.83			
P 4	13856.41	13856.43	1.534	2	P 2	12761.93	12761.91	0.401	-2
P 3	13918.02	13918.01	2.488	-1	P 1	12802.96			
P 2	13971.00	13971.01	1.686	1	R 0	12859.14	12859.14	13.899	0
P 1	14014.66	14014.64	0.377	-2	R 4	12866.07	12866.06	10.329	-1
R 4	14066.19	14066.18	0.702	-1	R 1	12874.06			
R 0	14072.16	14072.13	1.125	-3	R 3	12878.01	12878.03	2.533	2
R 3	14083.20	14083.16	0.412	-4	R 2	12880.39	12880.39	0.043	0
R 1	14085.76	14085.75	0.879	-1	RMS= 1.6 10 ² cm ⁻¹				
R 2	14089.46	14089.45	1.054	-1					
RMS= 1.4 10 ² cm ⁻¹									
H ₂ EF → B 13-5					H ₂ EF → B 13-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 5	11430.393	11430.394	2.566	1	P 5	10299.670	10299.673	4.057	3
P 4	11488.283	11488.286	3.837	3	P 4	10352.115	10352.114	4.639	-1
P 3	11540.100	11540.103	1.490	3	P 3	10399.476	10399.478	3.208	2
P 2	11585.594	11585.597	4.087	3	P 2	10441.559	10441.560	4.795	1
P 1	11624.192	11624.201	1.229	9	P 1	10477.854	10477.861	4.331	7
R 0	11679.139	11679.141	2.184	2	R 0	10531.635	10531.635	4.879	0
R 1	11695.291	11695.296	1.649	5	R 1	10548.953	10548.952	6.170	-1
R 4	11698.060				R 2	10560.021	10560.023	4.671	2
R 2	11704.055	11704.054	1.691	-1	R 4	10561.892	10561.895	0.444	3
R 3	11705.276	11705.277	1.153	1	R 3	10564.652	10564.655	2.853	3
RMS= 3.3 10 ³ cm ⁻¹					RMS= 3.1 10 ³ cm ⁻¹				
H ₂ EF → B 13-7					H ₂ EF → B 13-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 4	9247.69	9247.64	0.754	-5	P 4	8172.426	8172.429	6.533	3
P 3	9290.79				P 3	8212.156			
P 2	9329.56	9329.60	5.772	4	P 2	8248.281	8248.281	6.614	0
P 1	9363.56				P 1	8280.517			
R 0	9416.16	9416.16	2.452	0	R 0	8332.247	8332.248	5.724	1
R 1	9434.66	9434.68	0.892	2	R 1	8351.616	8351.620	5.955	4
R 2	9448.02	9448.00	4.040	-2	R 2	8366.742	8366.743	5.832	1
R 3	9455.96	9455.97	0.984	1	R 3	8377.332	8377.335	3.816	3
R 4	9457.47	9457.47	3.683	0	R 4	8382.203	8382.206	5.261	3
RMS= 2.7 10 ² cm ⁻¹					RMS= 2.5 10 ³ cm ⁻¹				

H ₂ EF → B 13-9					H ₂ EF → B 13-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 5	7092.981	7092.981	6.412	0	P 3	4193.172	4193.179	2.390	7
P 4	7130.758	7130.759	14.822	1	P 4	4194.838	4194.838	5.691	0
P 3	7166.069	7166.071	12.628	2	P 2	4227.034	4227.036	13.006	2
P 2	7198.886	7198.886	15.034	0	P 1	4253.941	4253.948	5.628	7
P 1	7228.862	7228.871	12.857	9	R 0	4302.645	4302.649	6.977	4
R 0	7279.434	7279.434	13.241	0	R 1	4325.040	4325.038	4.114	-2
R 1	7299.961	7299.966	13.111	5	R 2	4345.495	4345.499	7.949	4
R 2	7317.348	7317.350	12.318	2	R 3	4358.347			
R 3	7331.244	7331.250	3.994	6	R 4	4404.615	4404.618	3.120	3
R 4	7340.534	7340.536	1.068	2	RMS= 43 10 ³ cm ⁻¹				
RMS= 40 10 ³ cm ⁻¹					H ₂ EF → B 14-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	3254.017	3254.019	16.097	2	P 4	18335.16	18335.24	0.170	8
P 3	3276.105	3276.105	9.456	0	P 3	18422.70	18422.67	7.911	-3
P 2	3298.847	3298.847	18.864	0	P 2	18495.13	18495.10	0.899	-3
P 1	3322.062	3322.062	9.466	0	R 4	18530.16			
R 0	3369.230	3369.230	19.873	0	P 1	18551.17			
R 1	3393.161	3393.156	3.944	-5	R 3	18573.05	18573.00	0.408	-5
R 2	3417.308	3417.312	18.050	4	R 2	18601.90	18601.84	1.074	-6
R 3	3441.280	3441.273	2.195	-7	R 0	18611.28	18611.26	1.800	-2
R 4	3463.794	3463.803	2.117	9	R 1	18615.04	18614.99	1.067	-4
RMS= 26 10 ³ cm ⁻¹					RMS= 35 10 ² cm ⁻¹				
H ₂ EF → B 14-1					H ₂ EF → B 14-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	16841.64	16841.62	1.251	-2	P 4	15769.91	15769.87	6.684	-4
P 5	16943.43				P 3	15843.95	15843.95	2.627	0
P 4	17035.49				P 2	15905.99	15905.95	4.482	-4
P 3	17115.75				P 1	15954.95	15955.00	1.989	5
P 2	17182.57	17182.54	0.410	-3	R 4	15964.91	15964.87	1.731	-4
R 4	17230.48	17230.46	2.881	-2	R 3	15994.31			
P 1	17234.79				R 0	16011.48	16011.51	1.491	3
R 3	17266.10	17266.14	1.177	4	R 2	16012.75	16012.72	1.678	-3
R 2	17289.34	17289.31	0.307	-3	R 1	16018.82			
R 0	17292.95				RMS= 39 10 ² cm ⁻¹				
R 1	17298.65								
RMS= 29 10 ² cm ⁻¹									

H₂ EF → B 14-3					H₂ EF - B 14-4				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻²cm⁻¹
P 6	14374.28	14374.28	1.065	0	P 6	13187.55	13187.57	1.331	2
P 5	14459.55	14459.56	0.896	1	P 5	13265.61	13265.63	0.908	2
P 4	14537.33	14537.28	0.837	-5	P 4	13337.21	13337.22	0.977	1
P 3	14605.83	14605.83	1.071	0	P 3	13400.63	13400.63	1.132	0
P 2	14663.61	14663.66	0.689	5	P 2	13454.54	13454.53	1.190	-1
P 1	14709.70	14709.73	0.441	3	P 1	13498.00	13498.00	1.414	0
R 4	14732.33	14732.34	0.843	1	R 4	13532.20	13532.20	0.807	0
R 3	14756.18	14756.18	0.617	0	R 3	13550.98	13550.99	0.205	1
R 0	14764.77	14764.77	1.030	0	R 0	13551.75	13551.75	1.075	0
R 2	14770.38	14770.38	1.111	0	R 2	13561.30	13561.32	1.229	2
R 1	14773.56	14773.55	0.771	-1	R 1	13561.87	13561.78	1.038	-9
RMS= 2.0 10⁻² cm⁻¹					RMS= 2.7 10⁻² cm⁻¹				
H₂ EF → B 14-5					H₂ EF → B 14-6				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻³cm⁻¹
P 6	12032.05	12032.04	0.959	-1	P 5	10972.648	10972.651	1.468	3
P 5	12103.37	12103.40	0.708	3	P 4	11033.030	11033.028	4.199	-2
P 4	12169.20	12169.20	1.041	0	P 3	11087.278	11087.277	3.898	-1
P 3	12227.90	12227.89	0.664	-1	P 2	11134.169	11134.174	3.788	5
P 2	12278.20	12278.20	0.987	0	P 1	11172.892	11172.892	4.887	0
P 1	12319.23	12319.20	6.487	-3	R 0	11224.245	11224.244	4.379	-1
R 4	12364.19	12364.21	0.896	2	R 4	11228.026	11228.025	2.847	-1
R 0	12371.75	12371.77	0.631	2	R 1	11236.755			
R 3	12378.25	12378.25	0.953	0	R 3	11237.629	11237.631	1.689	2
R 1	12383.09	12379.11	0.932	2	R 2	11240.935	11240.940	3.682	5
R 2	12384.97	12384.97	1.181	0	RMS= 2.6 10⁻³ cm⁻¹				
RMS= 2.3 10⁻² cm⁻¹					H₂ EF → B 14-7				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻³cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁻²cm⁻¹
P 6	9814.439	9814.442	3.726	3	P 4	8853.34	8853.33	5.601	-1
P 5	9873.384	9873.381	3.761	-3	P 3	8899.96	8899.93	2.682	-3
P 4	9928.605	9928.603	4.758	-2	P 2	8940.89	8940.88	6.757	-1
P 3	9978.587	9978.583	4.588	-4	P 1	8975.55	8975.56	1.845	1
P 2	10022.167	10022.165	5.246	-2	R 0	9024.86			
P 1	10058.597	10058.601	4.302	4	R 1	9039.42	9039.43	2.846	1
R 0	10108.769	10108.768	4.601	-1	R 2	9047.66	9047.66	3.602	0
R 1	10122.460	10122.465	4.224	5	R 4	9048.34	9048.33	2.767	-1
R 4	10123.601	10123.600	1.000	-1	R 3	9050.31	9050.29	5.733	-2
R 2	10128.932	10128.932	4.414	0	RMS= 1.3 10⁻² cm⁻¹				
R 3	10128.939	10128.932	4.414	-7	RMS= 3.5 10⁻³ cm⁻¹				
RMS= 3.5 10⁻³ cm⁻¹									

H ₂ EF → B 14-9					H ₂ EF → B 14-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	7765.959	7765.958	3.984	-1	P 4	6792.31	6792.31	14.079	0
P 4	7811.672	7811.673	7.116	1	P 3	6834.74	6834.73	11.828	-1
P 3	7853.871	7853.871	6.322	0	P 2	6870.99	6870.99	14.042	0
P 2	7891.496	7891.497	3.480	1	P 1	6902.28	6902.28	8.309	0
P 1	7923.900	7923.899	6.440	-1	R 0	6949.84	6949.84	14.773	0
R 0	7972.044	7972.044	6.201	0	R 1	6966.14	6966.15	8.531	1
R 1	7987.763	7987.767	6.616	4	R 2	6977.76	6977.76	10.597	0
R 2	7998.262	7998.261	6.253	-1	R 3	6985.09	6985.10	14.643	1
R 3	8004.222	8004.218	5.505	-4	R 4	6987.31	6987.33	6.633	2
R 4	8006.668	8006.669	5.458	0	RMS= 0.8 10 ² cm ⁻¹				
RMS= 1.8 10 ³ cm ⁻¹									
H ₂ EF → B 14-13					H ₂ EF → B 15-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	3934.931	3934.935	5.632	3	P 5	17633.35	17633.39	0.100	4
P 3	3963.907				P 4	17731.01	17730.99	0.596	-2
P 2	3991.457	3991.460	10.046	3	P 3	17814.27	17814.34	0.136	7
P 1	4017.100				P 2	17882.44			
R 0	4061.840	4061.837	7.210	-3	R 4	17911.40			
R 1	4080.963	4080.962	0.570	-1	P 1	17935.14	17935.22	0.084	8
R 2	4098.223	4098.223	6.166	0	R 3	17956.02			
R 3	4114.258				R 2	17984.86	17984.89	7.882	3
R 4	4129.928				R 0	17992.82	17992.89	0.621	7
RMS= 2.9 10 ³ cm ⁻¹					R 1	17997.17			
					RMS= 3.4 10 ² cm ⁻¹				
H ₂ EF → B 15-2					H ₂ EF → B 15-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	16465.44	16465.53	0.235	9	P 6	13868.47	13868.45	1.233	-2
P 3	16542.48	16542.46	2.261	-2	P 5	13955.53	13955.53	1.086	0
P 2	16605.86	16605.86	0.707	0	P 4	14032.73	14032.71	0.884	-2
R 4	16645.83				P 3	14099.15	14099.19	0.478	4
P 1	16655.31				P 2	14154.41	14154.32	0.064	-9
R 3	16684.22				P 1	14198.35	14198.34	1.013	-1
R 2	16708.28	16708.27	0.815	-1	R 4	14213.12	14213.10	0.391	-2
R 0	16711.35				R 3	14240.90	14240.86	0.538	-4
R 1	16717.34				R 0	14251.62	14251.60	0.926	-2
RMS= 2.6 10 ² cm ⁻¹					R 2	14256.83	14256.81	0.946	-2
					R 1	14260.39	14260.37	0.952	-2
					RMS= 2.2 10 ² cm ⁻¹				

H ₂ EF → B 15-5					H ₂ EF → B 15-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	12864.72	12864.71	20.102	-1	P 5	11662.56	11662.59	0.395	3
P 3	12926.42	12926.44	0.491	2	P 4	11728.55	11728.54	1.100	-1
P 2	12978.07	12978.06	0.693	-1	P 3	11785.80	11785.80	1.230	0
P 1	13019.58				P 2	11834.04	11834.04	1.270	0
R 4	13045.11	13045.19	0.575	8	P 1	11873.24	11873.25	1.260	1
R 3	13068.17				R 4	11908.94	11908.92	0.953	-2
R 0	13071.62				R 0	11924.12	11924.12	1.298	0
R 2	13080.49	13080.49	6.588	0	R 3	11927.55	11927.55	0.971	0
R 1	13081.61	13081.66	3.035	5	R 1	11935.28	11935.26	0.394	-2
RMS= 2.0 10 ² cm ⁻¹					R 2	11936.46	11936.46	1.106	0
					RMS= 1.0 10 ² cm ⁻¹				
H ₂ EF → B 15-7					H ₂ EF → B 15-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 6	10495.36	10495.33	3.496	-3	P 5	9491.456			
P 5	10563.30	10563.29	2.911	-1	P 4	9548.865	9548.859	10.550	-6
P 4	10624.13	10624.13	4.317	0	P 3	9598.479	9598.478	3.351	-1
P 3	10677.11	10677.17	2.002	6	P 2	9640.761	9640.759	4.858	-2
P 2	10722.04	10722.04	4.530	0	P 1	9675.906	9675.903	3.028	-3
P 1	10758.95	10758.95	4.127	0	R 0	9724.727	9724.731	2.901	4
R 4	10804.52	10804.55	4.481	4	R 4	9729.254			
R 0	10808.64	10808.64	4.081	0	R 1	9737.938	9737.944	1.175	6
R 3	10818.85	10818.83	1.499	-2	R 3	9740.226			
R 1	10820.98	10820.97	3.691	-1	R 2	9743.180	9743.172	0.690	-8
R 2	10824.46	10824.45	4.262	0	RMS= 4.7 10 ³ cm ⁻¹				
RMS= 2.0 10 ² cm ⁻¹									
H ₂ EF → B 15-9					H ₂ EF → B 15-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺³ cm ⁻¹
P 5	8455.87	8455.86	2.364	-1	P 4	7487.839	7487.837	8.287	-2
P 4	8507.20	8507.20	4.387	0	P 3	7533.257	7533.253	8.146	-4
P 3	8552.39	8552.39	2.585	0	P 2	7570.864	7570.867	8.169	3
P 2	8591.37	8591.37	4.765	0	P 1	7602.631	7602.628	5.513	-3
P 1	8624.25	8624.24	2.875	-1	R 0	7649.712	7649.714	7.539	2
R 0	8671.91	8671.92	4.798	1	R 1	7664.664	7664.662	5.966	-2
R 1	8686.28	8686.29	4.612	1	R 4	7668.228	7668.220	2.418	-8
R 4	8687.58	8687.56	4.032	-2	R 2	7673.284	7673.283	7.027	-1
R 2	8693.79	8693.78	4.822	-1	R 3	7675.003	7675.012	5.347	8
R 3	8694.14	8694.12	4.213	-2	RMS= 3.8 10 ³ cm ⁻¹				
RMS= 1.0 10 ² cm ⁻¹									

H ₂ EF → B 15-11					H ₂ EF → B 15-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	6467.73	6467.72	0.990	-1	P 3	5579.49	5579.54	0.950	5
P 4	6510.53	6510.53	15.327	0	P 2	5619.51	5619.55	5.114	4
P 3	6548.75	6548.76	10.894	1	P 1	5649.33			
P 2	6582.43	6582.43	14.071	0	R 0	5695.13			
P 1	6611.75	6611.75	6.853	0	R 1	5711.36			
R 0	6657.62	6657.62	10.302	0	R 3	5721.24	5721.28	0.400	4
R 1	6673.78				R 2	5721.93			
R 2	6684.85	6684.85	8.046	0	RMS = 39 10 ⁻² cm ⁻¹				
R 3	6690.50	6690.56	1.838	6					
R 4	6690.92	6690.90	0.635	-2					
RMS = 10 10 ⁻² cm ⁻¹									
H ₂ EF → B 16-1					H ₂ EF → B 16-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	18200.30	18200.39	2.542	9	P 6	16950.96	16950.93	0.362	-3
P 5	18310.47	18310.46	2.119	-1	P 5	17052.43			
P 4	18405.79	18405.75	3.451	-4	P 4	17140.21	17140.22	0.518	1
P 3	18486.54				P 3	17214.74	17214.70	0.279	-4
P 2	18552.87	18552.84	0.403	-3	P 2	17276.28	17276.26	1.107	-2
R 4	18589.15	18589.14	4.452	-1	R 4	17323.58			
P 1	18604.62	18604.71	1.078	9	P 1	17324.78	17324.77	0.315	-1
R 3	18633.14				R 3	17361.34	17361.36	0.458	2
R 2	18659.64				R 0	17381.77	17381.77	1.033	0
R 0	18663.25	18663.23	0.448	-2	R 2	17383.05	17383.03	0.567	-2
R 1	18669.44				R 1	17389.61	17389.63	0.072	2
RMS = 48 10 ⁻² cm ⁻¹					RMS = 22 10 ⁻² cm ⁻¹				
H ₂ EF → B 16-3					H ₂ EF → B 16-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	15826.59	15826.59	12.730	0	P 6	14546.22	14546.20	0.261	-2
P 4	15907.63	15907.63	6.704	0	P 5	14632.65	14632.67	0.499	2
P 3	15976.62	15976.59	3.865	-3	P 4	14707.50	14707.50	1.019	0
P 2	16033.91				P 3	14771.42	14771.42	0.791	0
P 1	16079.53				P 2	14824.83	14824.83	0.935	0
R 4	16090.99				P 1	14867.83	14867.81	0.526	-2
R 3	16123.21	16123.23	1.362	2	R 4	14890.87	14890.89	0.169	2
R 0	16135.06				R 3	14918.02	14918.01	0.316	-1
R 2	16140.67	16140.66	1.036	-1	R 0	14922.04	14922.04	1.244	0
R 1	16144.35	16144.39	0.556	4	R 2	14931.60	14931.60	0.757	0
RMS = 13 10 ⁻² cm ⁻¹					R 1	14932.66	14932.68	0.767	2
					RMS = 13 10 ⁻² cm ⁻¹				

H ₂ EF → B 16-5					H ₂ EF → B 16-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 6	13390.72	13390.72	0.922	0	P 5	12339.683	12339.691	3.189	8
P 5	13470.41	13470.34	1.203	-7	P 4	12403.328	12403.336	1.061	8
P 4	13539.50	13539.47	3.890	-3	P 3	12458.069	12458.074	0.217	5
P 3	13598.69	13598.70	1.068	1	P 2	12504.464			
P 2	13648.50	13648.50	1.463	0	P 1	12542.720	12542.715	0.637	-5
P 1	13689.06	13689.08	1.098	2	R 4	12586.695			
R 4	13722.86	13722.82	0.828	-4	R 0	12594.539	12594.538	1.114	-1
R 0	13742.04	13742.04	1.295	0	R 3	12604.665			
R 3	13745.29	13745.34	2.227	5	R 1	12607.546	12607.545	0.840	-1
R 1	13753.88	13753.88	1.076	0	R 2	12611.233	12611.226	0.472	-7
R 2	13755.27	13755.28	0.855	1	RMS = 6.6 10 ⁻³ cm ⁻¹				
RMS = 3.1 10 ⁻² cm ⁻¹									
H ₂ EF → B 16-7					H ₂ EF → B 16-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 6	11173.107	11173.107	3.732	0	P 4	10223.639	10223.642	4.376	3
P 5	11240.419	11240.417	1.249	-2	P 3	10270.749	10270.750	4.602	1
P 4	11298.903	11298.904	2.080	1	P 2	10311.185	10311.183	4.731	-2
P 3	11349.378				P 1	10345.383	10345.381	3.483	-2
P 2	11392.461	11392.466	3.297	5	R 0	10395.151	10395.148	4.101	-3
P 1	11428.425	11428.422	3.101	-3	R 4	10407.006	10407.006	1.402	0
R 0	11479.063	11479.066	1.889	3	R 1	10410.208	10410.204	4.170	-4
R 4	11482.270	11482.266	1.069	-4	R 3	10417.345			
R 1	11493.251	11493.252	1.169	1	R 2	10417.954	10417.958	4.640	4
R 3	11495.974	11495.978	0.384	4	RMS = 2.8 10 ⁻³ cm ⁻¹				
R 2	11499.231	11499.229	1.336	-2					
RMS = 2.7 10 ⁻³ cm ⁻¹									
H ₂ EF → B 16-9					H ₂ EF → B 16-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 4	9181.970				P 4	8162.613	8162.616	3.629	3
P 3	9224.661				P 3	8205.526	8205.526	2.395	0
P 2	9261.791				P 2	8241.288	8241.287	6.208	-1
P 1	9293.728				P 1	8272.108	8272.109	6.255	1
R 0	9342.339	9342.335	10.352	-4	R 0	8320.136	8320.136	5.470	0
R 1	9358.554				R 1	8336.933			
R 4	9365.337	9365.342	7.245	5	R 4	8345.980	8345.979	3.971	-1
R 2	9368.560	9368.564	1.177	4	R 2	8348.057	8348.059	5.740	2
R 3	9371.258				R 3	8352.123	8352.123	3.457	0
RMS = 4.5 10 ⁻³ cm ⁻¹					RMS = 1.5 10 ⁻³ cm ⁻¹				

H ₂ EF → B 16-11					H ₂ EF → B 16-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 5	7144.852	7144.852	5.145	0	P 4	6246.051	6246.052	4.202	1
P 4	7185.305	7185.305	13.876	0	P 3	6251.764	6251.761	1.902	-3
P 3	7221.024	7221.028	12.158	4	P 2	6289.938	6289.936	6.333	-2
P 2	7252.853	7252.853	13.384	0	P 1	6318.807	6318.813	1.528	6
P 1	7281.224	7281.227	10.308	3	R 0	6365.549	6365.552	3.882	3
R 0	7328.044	7328.047	7.942	3	R 1	6383.632			
R 1	7346.049	7346.048	8.017	-1	R 2	6396.707			
R 2	7359.622	7359.619	10.940	-3	R 3	6398.360			
R 3	7367.620	7367.624	4.225	4	R 4	6429.418			
R 4	7368.672	7368.668	5.340	-4	RMS= 49 10 ⁻³ cm ⁻¹				
RMS= 26 10 ⁻³ cm ⁻¹									
H ₂ EF → B 17-1					H ₂ EF → B 17-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	18839.68	18839.69	0.088	1	P 6	17590.33	17590.31	0.609	-2
P 5	18943.33				P 5	17685.28	17685.31	0.579	3
P 4	19035.54	19035.57	0.403	3	P 4	17769.97	17769.97	0.687	0
P 3	19115.89				P 3	17844.09	17844.06	0.525	-3
P 2	19182.98	19182.95	0.374	-3	P 2	17906.39	17906.38	1.011	-1
R 4	19228.53				P 1	17955.60	17955.61	0.262	1
P 1	19235.43				R 4	17962.95			
R 3	19266.00				R 3	17994.20	17994.24	0.635	4
R 2	19289.40	19289.36	0.212	-4	R 0	18011.88	18011.85	0.803	-3
R 0	19293.35	19293.35	0.307	0	R 2	18012.81	18012.79	0.896	-2
R 1	19298.79				R 1	18018.95	18018.96	4.210	1
RMS= 25 10 ⁻² cm ⁻¹					RMS= 19 10 ⁻² cm ⁻¹				
H ₂ EF → B 17-5					H ₂ EF → B 17-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	14030.09	14030.06	0.378	-3	P 4	13033.09	13033.10	0.512	1
P 5	14103.26	14103.22	0.282	-4	P 3	13087.41	13087.43	3.078	2
P 4	14169.25	14169.24	1.281	-1	P 2	13134.57	13134.57	0.970	0
P 3	14228.04	14228.00	0.989	-4	P 1	13173.54	13173.51	0.254	-3
P 2	14278.61	14278.60	0.990	-1	R 0	13224.65	13224.60	0.900	-5
P 1	14319.87	14319.87	0.434	0	R 4	13226.07			
R 4	14362.23	14362.26	0.411	3	R 1	13236.89			
R 0	14372.15	14372.15	1.157	0	R 3	13237.52			
R 3	14378.15				R 2	13240.99			
R 1	14383.23	14383.24	0.565	1	RMS= 25 10 ⁻² cm ⁻¹				
R 2	14385.03	14385.03	1.103	1					
RMS= 19 10 ⁻² cm ⁻¹									

H ₂ EF → B 17-7					H ₂ EF → B 17-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	11812.48	11812.49	1.640	1	P 5	10801.43	10801.40	2.755	-3
P 5	11873.28	11873.25	1.260	-3	P 4	10853.40	10853.39	2.682	-1
P 4	11928.66	11928.66	1.292	0	P 3	10900.09	10900.09	3.100	0
P 3	11978.72				P 2	10941.29	10941.30	4.240	1
P 2	12022.57	12022.57	1.029	0	P 1	10976.20	10976.21	2.894	1
P 1	12059.24	12059.24	0.892	0	R 0	11025.26	11025.26	3.817	0
R 0	12109.17	12109.16	1.128	-1	R 1	11039.55	11039.54	2.865	-1
R 4	12121.64	12121.64	1.266	0	R 4	11046.38	11046.38	2.112	0
R 1	12122.60				R 2	11047.71	11047.71	3.265	0
R 3	12128.83				R 3	11050.20	11050.18	1.836	-2
R 2	12128.99	12129.08	1.072	9	RMS= 1.5 10 ⁻² cm ⁻¹				
RMS= 3.1 10 ⁻² cm ⁻¹									
H ₂ EF → B 17-9					H ₂ EF → -B 17-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	9765.85	9765.83	2.799	-2	P 4	8792.37			
P 4	9811.73	9811.72	4.179	-1	P 3	8834.87			
P 3	9854.01	9854.01	3.933	0	P 2	8871.40	8871.40	1.933	0
P 2	9891.90	9891.89	5.110	-1	P 1	8902.92			
P 1	9924.54	9924.54	2.835	0	R 0	8950.24	8950.24	0.484	0
R 0	9972.45	9972.44	3.718	-1	R 1	8966.28	8966.28	0.883	0
R 1	9987.90	9987.90	3.360	0	R 2	8977.82	8977.81	1.302	-1
R 2	9998.32	9998.32	4.593	0	R 3	8984.98			
R 3	10004.11	10004.10	0.454	-1	R 4	8985.35	8985.38	1.515	3
R 4	10004.71	10004.70	0.588	-1	RMS= 1.2 10 ⁻² cm ⁻¹				
RMS= 0.8 10 ⁻² cm ⁻¹									
H ₂ EF → B 17-11					H ₂ EF → B 17-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 4	7815.063	7815.063	6.224	0	P 5	6835.037	6835.030	7.118	-7
P 3	7850.368	7850.372	4.669	4	P 4	6875.808	6875.807	13.039	-1
P 2	7882.961	7882.963	6.536	2	P 3	6881.108	6881.113	6.118	5
P 1	7912.040	7912.041	6.570	1	P 2	6920.047	6920.046	13.759	-1
R 0	7958.153	7958.153	5.763	0	P 1	6949.623	6949.625	13.329	2
R 1	7975.394	7975.392	6.201	-2	R 0	6995.658	6995.657	13.873	-1
R 2	7989.380	7989.383	6.128	3	R 1	7012.977	7012.977	5.387	0
R 3	8000.477	8000.468	1.213	-9	R 2	7026.465	7026.465	10.629	0
R 4	8008.043	8008.048	4.827	5	R 3	7031.217			
RMS= 4.0 10 ⁻³ cm ⁻¹					R 4	7068.789	7068.792	8.466	3
					RMS= 2.7 10 ⁻³ cm ⁻¹				

H ₂ EF → B 17-13					H ₂ EF → B 18-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	5905.24	5905.20	0.937	-4	P 4	20886.16			
P 4	5934.99	5934.98	2.664	-1	P 3	20986.02			
P 3	5964.04				R 4	21055.43	21055.38	0.288	-5
P 2	5991.86	5991.86	4.195	0	P 2	21067.50	21067.50	0.253	0
P 1	6017.74				R 3	21110.30	21110.25	1.197	-5
R 0	6062.24				P 1	21128.32	21128.29	0.017	-3
R 1	6081.10	6081.07	1.903	-3	R 2	21152.89	21152.94	0.068	5
R 2	6098.28	6098.30	2.905	2	R 1	21178.36	21178.31	0.181	-5
R 3	6114.15				R 0	21183.64	21183.67	0.095	3
RMS= 1.8 10 ² cm ⁻¹					RMS= 4.2 10 ² cm ⁻¹				
H ₂ EF → -B 18-2					H ₂ EF → B 18-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	18117.56	18117.56	0.260	0	P 4	17088.32	17088.31	1.278	-1
P 5	18222.64	18222.73	1.915	9	P 3	17169.15	17169.21	0.826	6
P 4	18320.90	18320.89	0.710	-1	P 2	17235.98	17235.95	1.207	-3
P 3	18407.28	18407.23	4.808	-5	R 4	17257.59	17257.60	0.024	1
P 2	18478.36	18478.33	0.968	-3	P 1	17286.84	17286.81	0.127	-3
R 4	18490.17	18490.17	0.429	0	R 3	17293.43	17293.46	0.134	3
R 3	18531.56				R 2	17321.37	17321.36	0.329	-1
P 1	18532.10	18532.12	0.214	2	R 1	17336.89	17336.93	0.113	4
R 2	18563.75	18563.74	0.617	-1	R 0	17337.13			
R 1	18582.14	18582.11	2.135	-3	RMS= 3.1 10 ² cm ⁻¹				
R 0	18583.84	18583.81	2.164	-3					
RMS= 4.9 10 ² cm ⁻¹									
H ₂ EF → B 18-4					H ₂ EF → B 18-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	15712.82	15712.76	0.447	-6	P 4	14720.19	14720.24	0.739	5
P 5	15802.86	15802.88	16.196	2	P 3	14791.23			
P 4	15888.20	15888.22	4.710	2	P 2	14850.57	14850.60	0.631	3
P 3	15963.96	15963.93	2.303	-3	R 4	14889.46			
P 2	16026.91				P 1	14896.38			
R 4	16057.47	16057.50	1.404	3	R 3	14915.51	14915.47	0.162	-4
P 1	16075.15	16075.21	0.627	6	R 2	14935.96			
R 3	16088.24	16088.18	1.337	-6	R 0	14944.12			
R 2	16112.30				R 1	14946.42			
R 0	16124.12				RMS= 4.3 10 ² cm ⁻¹				
R 1	16125.19								
RMS= 2.7 10 ² cm ⁻¹									

H ₂ EF → B 18-6					H ₂ EF → B 18-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	13432.83	13432.76	1.415	-7	P 6	12339.70	12339.75	6.507	5
P 5	13509.90				P 5	12410.64	12410.72	0.264	8
P 4	13584.02	13584.07	0.165	4	P 4	12479.60			
P 3	13650.60	13650.52	0.660	-8	P 3	12541.91			
P 2	13706.54	13706.56	0.186	2	P 2	12594.53	12594.54	1.114	1
P 1	13750.04	13750.10	0.624	6	P 1	12635.74			
R 4	13753.29				R 4	12648.87			
R 3	13774.88				R 3	12666.19			
R 2	13791.93				R 2	12679.93			
R 0	13796.61	13796.58	0.052	-3	R 0	12681.14			
R 1	13800.08	13800.02	0.026	-6	R 1	12685.79			
RMS= 6.6 10 ² cm ⁻¹					RMS= 43 10 ² cm ⁻¹				
H ₂ EF → B 18-8					H ₂ EF → B 18-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	11338.79	11338.79	2.416	0	P 4	10362.66	10362.66	2.617	0
P 4	11404.33	11404.35	0.016	2	P 3	10417.20			
P 3	11463.28				P 2	10463.86	10463.86	2.724	0
P 2	11513.26	11513.22	12.056	-4	P 1	10501.05	10500.98	0.484	-7
P 1	11552.70	11552.63	0.714	-7	R 4	10531.93	10531.91	4.595	-2
R 4	11573.60	11573.64	0.213	4	R 3	10541.47	10541.46	0.827	-1
R 3	11587.56				R 0	10544.41	10544.42	2.675	1
R 0	11597.22	11597.26	2.747	4	R 2	10549.25	10549.32	1.336	7
R 2	11598.65	11598.64	0.751	-1	R 1	10551.09	10551.11	0.195	2
R 1	11602.74	11602.72	0.130	-2	RMS= 2.6 10 ² cm ⁻¹				
RMS= 3.6 10 ² cm ⁻¹									
H ₂ EF → B 18-12					H ₂ EF → B 18-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	7372.40	7372.43	2.345	3	P 4	6485.92	6485.92	10.048	0
P 4	7426.75	7426.74	3.350	1	P 3	6527.23	6527.20	4.193	-3
P 3	7444.30	7444.26	4.719	-4	P 2	6563.82	6563.84	11.073	2
P 2	7492.01	7492.01	5.591	0	P 1	6594.25	6594.31	0.496	6
P 1	7526.12	7526.15	2.161	3	R 0	6634.21	6634.23	1.619	2
R 0	7567.62	7567.62	2.629	0	R 1	6644.29	6644.25	3.182	-4
R 3	7568.58	7568.54	4.442	-4	R 2	6649.22	6649.22	7.485	0
R 1	7576.17	7576.14	3.179	-3	R 3	6651.51	6651.53	1.615	2
R 2	7577.40	7577.41	4.842	1	R 4	6655.19	6655.19	8.257	0
R 4	7596.01	7596.02	10.593	1	RMS= 19 10 ² cm ⁻¹				
RMS= 2.2 10 ² cm ⁻¹									

H ₂ EF → B 19-2					H ₂ EF → B 19-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	18897.16	18897.22	0.121	7	P 4	17846.66	17846.63	2.144	-3
P 5	18993.54				P 3	17916.25	17916.24	0.920	-1
P 4	19079.24	19079.20	0.381	-4	P 2	17974.98	17974.97	0.943	-1
P 3	19154.38	19154.36	2.006	-2	P 1	18022.23	18022.19	2.716	-4
P 2	19217.36				R 4	18037.19	18037.20	0.954	1
P 1	19267.49				R 3	18064.33	18064.28	0.450	-5
R 4	19269.77	19269.69	2.670	-8	R 0	18076.14	18076.15	0.273	1
R 3	19302.46				R 2	18079.70	18079.69	0.852	-1
R 2	19322.08	19322.03	0.130	-5	R 1	18083.99	18083.98	0.761	-1
R 0	19322.85	19322.83	0.451	-2	RMS= 2.8 10 ⁻² cm ⁻¹				
R 1	19329.24								
RMS= 6.2 10 ⁻² cm ⁻¹									
H ₂ EF → B 19-6					H ₂ EF → B 19-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	14212.43	14212.50	0.273	7	P 5	12109.69	12109.60	0.508	-9
P 5	14280.80	14280.81	0.208	1	P 4	12162.67	12162.67	0.899	0
P 4	14342.36	14342.35	1.270	-1	P 3	12210.38			
P 3	14397.70	14397.70	0.780	0	P 2	12252.26	12252.30	0.948	4
P 2	14445.54	14445.54	1.106	0	P 1	12288.09	12288.09	3.212	0
P 1	14485.43	14485.41	1.059	-2	R 0	12336.23	12336.20	4.003	-3
R 4	14532.89	14532.89	0.946	0	R 1	12349.84	12349.81	3.454	-3
R 0	14535.62	14535.62	1.638	0	R 4	12353.20			
R 3	14545.78				R 2	12356.98	12357.00	1.067	2
R 1	14547.18	14547.19	0.867	1	R 3	12358.46	12358.47	3.580	1
R 2	14550.26	14550.30	0.828	4	RMS= 2.6 10 ⁻² cm ⁻¹				
RMS= 1.8 10 ⁻² cm ⁻¹									
H ₂ EF → B 19-9					H ₂ EF → B 19-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 5	11074.110	11074.108	2.431	-2	P 4	10101.642	10101.638	8.266	-4
P 4	11120.999	11121.002	7.115	3	P 3	10145.161	10145.162	7.965	1
P 3	11164.296	11164.295	3.925	-1	P 2	10182.367	10182.364	8.312	-3
P 2	11202.870	11202.875	7.764	5	P 1	10214.814			
P 1	11236.434				R 0	10261.215	10261.215	5.430	0
R 0	11283.417	11283.420	4.185	3	R 1	10276.568	10276.574	6.111	6
R 1	11298.188	11298.192	2.754	4	R 2	10287.087	10287.092	7.275	5
R 2	11307.589				R 4	10292.177	10292.174	2.397	-3
R 4	11311.534	11311.537	2.532	3	R 3	10293.239	10293.236	1.228	-3
R 3	11312.374	11312.374	2.236	0	RMS= 3.8 10 ⁻³ cm ⁻¹				
RMS= 3.2 10 ⁻³ cm ⁻¹									

H ₂ EF → B 19-12					H ₂ EF → B 19-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹
P 5	8143.30	8143.30	2.796	0	P 5	7213.501	7213.500	9.074	0
P 4	8185.08	8185.08	3.651	0	P 4	7244.259	7244.254	33.530	-5
P 3	8191.40	8191.41	1.643	1	P 3	7274.332	7274.331	21.941	0
P 2	8231.02	8231.01	5.532	-1	P 2	7302.830	7302.828	26.822	-2
P 1	8261.51				P 1	7329.634	7329.631	18.996	-3
R 0	8306.63	8306.61	3.375	-2	R 0	7373.213	7373.213	18.437	0
R 1	8323.27	8323.27	3.091	0	R 1	7391.388	7391.387	9.906	-1
R 2	8335.74	8335.74	3.557	0	R 2	7407.550	7407.554	18.480	4
R 3	8339.48	8339.51	5.062	3	R 3	7422.409	7422.411	8.000	1
R 4	8375.61	8375.63	2.622	2	R 4	7434.794	7434.800	12.412	6
RMS= 14 10 ² cm ⁻¹					RMS= 32 10 ³ cm ⁻¹				
H ₂ EF → B 20-2					H ₂ EF → B 20-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	19442.08	19442.07	0.366	-1	P 6	18224.08	18224.06	2.187	-2
P 5	19564.69				P 5	18338.85	18338.79	0.752	-6
P 4	19667.17	19667.16	0.422	-1	P 4	18434.58			
P 3	19750.49	19750.56	0.388	7	P 3	18512.36			
R 4	19814.70	19814.68	0.203	-2	P 2	18577.89	18577.85	6.014	-4
P 2	19820.27	19820.25	0.426	-2	R 4	18582.12	18582.11	2.135	-1
P 1	19873.22				P 1	18627.97	18627.88	0.410	-9
R 3	19873.60	19873.68	0.131	8	R 3	18635.47			
R 2	19910.01				R 2	18667.63	18667.58	0.167	-5
R 1	19925.35				R 0	18679.05			
R 0	19925.75				R 1	18680.09	18680.10	0.099	1
RMS= 39 10 ² cm ⁻¹					RMS= 35 10 ² cm ⁻¹				
H ₂ EF → B 20-7					H ₂ EF → B 20-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	13664.23	13664.19	1.068	-4	P 3	12806.49			
P 5	13752.68				P 2	12855.17	12855.15	9.730	-2
P 4	13825.86	13825.84	2.713	-2	P 1	12893.82			
P 3	13885.12	13885.10	0.298	-2	R 0	12939.14	12939.05	0.309	-9
P 2	13936.45	13936.44	0.340	-1	R 2	12944.91	12944.88	3.155	-3
R 4	13973.39				R 1	12945.95	12945.88	2.863	-7
P 1	13976.87	13976.88	0.121	1	RMS= 3.6 10 ² cm ⁻¹				
R 3	14008.23	14008.19	0.223	-4					
R 0	14023.05	14023.01	0.010	-4					
R 2	14026.19	14026.18	0.240	-1					
R 1	14028.99								
RMS= 29 10 ² cm ⁻¹									

H ₂ EF → B 20-9					H ₂ EF → B 20-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 4	11708.93	11708.94	1.009	1	P 4	10689.57	10689.58	2.773	1
P 3	11760.40	11760.40	0.743	0	P 3	10741.27	10741.28	3.223	1
P 2	11805.78	11805.78	1.248	0	P 2	10785.27	10785.27	4.467	0
P 1	11842.17	11842.15	9.164	-2	P 1	10820.55	10820.53	1.149	-2
R 4	11856.46	11856.42	4.115	-4	R 4	10837.10	10837.13	4.815	3
R 3	11883.52	11883.50	3.133	-2	R 0	10864.12	10864.12	2.261	0
R 0	11886.32	11886.30	4.118	-2	R 3	10864.38	10864.38	3.779	0
R 1	11894.30	11894.35	3.189	5	R 1	10872.68	10872.72	6.944	4
R 2	11895.52	11895.56	3.856	4	R 2	10875.01	10875.02	2.512	1
RMS= 2.9 10 ² cm ⁻¹					RMS= 2.4 10 ² cm ⁻¹				
H ₂ EF → B 20-11					H ₂ EF → B 20-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	9657.11	9657.10	0.237	-1	P 4	8773.01			
P 4	9712.26	9712.27	3.431	1	P 3	8787.51			
P 3	9756.77	9756.78	0.122	1	P 2	8833.92			
P 2	9796.84	9796.83	4.561	-1	P 1	8867.25			
P 1	9829.66	9829.67	1.343	1	R 0	8909.53	8909.58	0.199	5
R 4	9859.79				R 3	8910.62	8910.63	5.723	1
R 0	9872.03	9872.00	5.867	-3	R 1	8919.38			
R 3	9879.88	9879.84	1.499	-4	R 4	8920.54	8920.54	1.575	0
R 1	9881.79	9881.78	3.206	-1	R 2	8923.66			
R 2	9886.58	9886.56	2.070	-2	RMS= 1.0 10 ² cm ⁻¹				
RMS= 2.0 10 ² cm ⁻¹									
H ₂ EF → B 20-13					H ₂ EF → B 21-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 4	7832.19	7832.19	2.116	0	P 5	21369.97	21370.01	0.321	4
P 3	7870.44	7870.44	2.179	0	P 4	21492.38	21492.39	0.320	1
P 2	7905.74	7905.74	6.293	0	P 3	21574.99	21574.97	0.646	-2
P 1	7935.37				R 4	21650.12			
R 0	7976.12	7976.12	4.015	0	R 3	21692.65	21692.67	0.084	2
R 4	7979.72	7979.71	2.038	-1	R 2	21746.23	21746.24	0.404	1
R 1	7987.50	7987.47	2.213	-3	R 1	21757.88	21757.88	0.201	0
R 3	7993.55				P 2	21786.66	21786.67	0.422	1
R 2	7995.48	7995.48	4.324	1	P 1	21834.71	21834.74	0.569	2
RMS= 1.0 10 ² cm ⁻¹					R 0	21897.04	21897.03	0.312	-1
					RMS= 2.0 10 ² cm ⁻¹				

H ₂ EF → B 21-2					H ₂ EF → B 21-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	20111.93	20111.97	0.053	4	P 6	18793.92	18793.89	2.221	-3
P 4	20226.80	20226.85	0.259	5	P 5	18886.09			
P 3	20303.19	20303.15	0.058	-4	P 4	18994.22			
R 4	20384.55				P 3	19065.06	19065.08	0.492	2
R 3	20420.85	20420.87	0.159	2	R 4	19151.96			
R 2	20469.64	20469.66	0.343	2	R 3	19182.72			
R 1	20478.05	20477.99	0.185	-6	R 2	19227.26	19227.24	0.676	-2
P 2	20510.07	20510.06	0.333	-1	R 1	19232.79	19232.82	1.681	3
P 1	20554.88				P 2	19267.70			
R 0	20615.56				P 1	19309.62			
RMS= 3.6 10 ² cm ⁻¹					R 0	19368.85	19368.86	0.209	1
					RMS= 2.8 10 ² cm ⁻¹				
H ₂ EF → B 21-4					H ₂ EF → B 21-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	17692.15	17692.16	7.710	1	P 4	16626.08			
P 4	17794.09	17794.06	0.893	-3	P 3	16687.14			
P 3	17859.87	17859.89	0.168	2	R 4	16783.83	16783.82	0.127	-1
R 4	17951.84				R 3	16804.79			
R 3	17977.52	17977.51	0.799	-1	R 2	16841.86	16841.78	0.176	-8
R 2	18018.19	18018.15	0.705	-4	R 1	16842.33			
R 1	18021.10				P 2	16882.29			
P 2	18058.62	18058.61	1.020	-1	P 1	16919.16			
P 1	18097.93	18097.95	1.030	2	R 0	16975.83			
R 0	18155.83	18155.81	1.079	-2	RMS= 5.7 10 ² cm ⁻¹				
RMS= 1.7 10 ² cm ⁻¹									
H ₂ EF-B 21 → 6					H ₂ EF → B 21-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 4	15489.92	15489.89	0.017	-3	P 6	14234.08	14234.07	3.429	-1
P 3	15546.51				P 5	14299.92			
R 4	15647.66				P 4	14385.49			
R 3	15664.17				P 3	14437.82			
R 1	15695.99				R 4	14543.24			
R 2	15697.82				R 3	14555.48	14555.41	0.849	-7
P 2	15738.25	15738.26	1.831	1	R 1	14581.69			
P 1	15772.82	15772.81	2.952	-1	R 2	14585.82	14585.84	0.230	2
R 0	15828.33	15828.31	6.113	-2	P 2	14626.25	14626.25	1.009	0
RMS= 1.8 10 ² cm ⁻¹					P 1	14658.52			
					R 0	14712.85	14712.87	0.527	2
					RMS= 2.7 10 ² cm ⁻¹				

H ₂ EF → B 21-8					H ₂ EF → B 21-9					
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹	
P 5	13228.08	13228.09	0.429	1	P 3	12313.11	12313.19	3.468	8	
P 4	13310.23				R 3	12430.76				
P 3	13359.19				R 1	12447.00				
R 4	13467.98				R 2	12455.15				
R 3	13476.85	13476.79	1.158	-6	P 2	12495.58	12523.84	0.312	1	
R 1	13498.65				P 1	12523.83				
R 2	13504.54				R 0	12576.13				3.212
P 2	13544.98									
P 1	13575.48	13575.48	1.091	0	RMS= 6.2 10 ² cm ⁻¹					
R 0	13628.94									
RMS= 4.0 10 ² cm ⁻¹										

H ₂ EF-B 21-10					H ₂ EF → B 21-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	11249.20	11406.94	2.471	-1	P 5	10204.36	10204.41	0.341	5
P 3	11293.97				P 4	10271.89			
R 4	11406.95				P 3	10309.47			
R 3	11411.63				R 3	10427.13			
R 1	11425.38	11434.64	0.599	-1	R 4	10429.64	10446.23	1.530	2
R 2	11434.65				R 1	10434.49			
P 2	11475.08				R 2	10446.21			
P 1	11502.20				P 2	10486.64			
R 0	11553.93	11553.92	1.373	-1	P 1	10511.32	10511.35	2.136	3
					R 0	10561.83			
RMS= 1.7 10 ² cm ⁻¹					RMS= 2.6 10 ² cm ⁻¹				

H ₂ EF → B 21-12					H ₂ EF → B 21-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	9332.64	9332.64	0.223	0	R 1	8540.20	8540.15	0.234	-5
P 3	9340.21				R 2	8555.11			
R 3	9457.87				P 2	8595.54			
R 1	9472.08				P 1	8617.03			
R 2	9483.30	9483.29	0.017	-1	R 0	8665.92	8665.87	8.813	-5
R 4	9490.39								
P 2	9523.73								
P 1	9548.90								
R 0	9599.34	9599.37	3.028	3	RMS= 4.7 10 ² cm ⁻¹				
RMS= 2.0 10 ² cm ⁻¹									

H ₂ EF → B 22-1					H ₂ EF → B 22-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	22010.96	22010.93	0.016	-3	P 2	20970.57			
P 4	22101.49				P 1	21022.82	21022.78	0.238	-4
P 3	22178.62	22178.67	0.120	5	R 0	21076.06	21076.04	0.357	-2
P 2	22247.16	22247.19	0.453	3	R 2	21078.76	21078.75	0.240	-1
R 4	22287.41				R 1	21081.69	21081.68	0.095	-1
P 1	22302.65	22302.66	0.049	1	RMS= 2.3 10² cm⁻¹				
R 3	22333.63								
R 2	22355.34	22355.32	0.119	-2					
R 0	22357.53	22357.55	0.189	2					
R 1	22361.52								
RMS= 3.0 10² cm⁻¹									
H ₂ EF → B 22-3					H ₂ EF → B 22-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	19527.07	19527.07	0.211	0	P 5	18333.13	18333.06	0.031	-7
P 4	19603.33	19603.32	0.464	-1	P 4	18403.21	18403.15	4.697	-6
P 3	19668.70	19668.71	0.946	1	P 3	18463.50	18463.53	1.147	3
P 2	19728.19	19728.19	0.498	0	P 2	18519.12	18519.10	0.786	-2
P 1	19777.56	19777.55	0.433	-1	P 1	18565.87			
R 4	19789.25				R 4	18589.13	18589.13	4.820	0
R 3	19823.70	19823.69	0.391	-1	R 0	18616.33	18616.30	0.738	-3
R 0	19829.35	19829.32	0.535	-3	R 3	18618.51	18618.44	1.014	-7
R 2	19836.38	19836.39	0.512	1	R 1	18624.74	18624.72	2.194	-2
R 1	19836.43	19836.39	0.512	-4	R 2	18627.31	18627.30	3.248	-1
RMS= 1.9 10² cm⁻¹					RMS= 3.7 10² cm⁻¹				
H ₂ EF → B 22-5					H ₂ EF → B 22-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	17170.89	17170.81	0.103	-8	P 6	15964.49	15964.47	2.006	-2
P 4	17235.20	17235.24	0.298	4	P 5	16040.17	16040.18	1.871	1
P 3	17290.77				P 4	16099.03	16099.07	0.326	4
P 2	17342.79	17342.76	1.128	-3	P 3	16150.15			
P 1	17387.10	17387.11	0.855	1	P 2	16198.75	16198.69	0.998	-6
R 4	17421.12	17421.10	0.167	-2	P 1	16240.76	16240.78	1.250	2
R 0	17436.33	17436.33	1.164	0	R 4	16284.96			
R 3	17445.78				R 0	16288.83	16288.79	1.145	-4
R 1	17445.96	17445.94	0.270	-2	R 1	16299.63			
R 2	17450.97	17450.97	1.624	0	R 3	16305.15			
RMS= 1.9 10² cm⁻¹					R 2	16306.94	16306.90	0.555	-4
					R 2	16306.94	16306.90	1.109	-4
					RMS= 3.1 10² cm⁻¹				

H ₂ EF → -B 22-10					H ₂ EF → B 22-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	11858.32	11858.32	3.163	0	P 5	10845.34	10845.34	0.955	0
P 3	11897.61	11897.57	3.294	-4	P 4	10881.01	10881.01	2.772	0
P 2	11935.58	11935.60	0.862	2	P 3	10913.10	10913.05	4.175	-5
P 1	11970.14				P 2	10947.14	10947.12	4.801	-2
R 0	12014.42				P 1	10979.26	10979.26	2.544	0
R 1	12029.01	12029.03	0.578	2	R 0	11022.33	11022.25	0.815	-8
R 2	12043.76	12043.76	0.890	0	R 1	11038.13	11038.16	1.514	3
R 4	12044.24	12044.20	0.671	-4	R 2	11055.33	11055.33	1.580	0
R 3	12052.61				R 4	11066.93			
RMS= 2.6 10 ² cm ⁻¹					R 3	11068.11	11068.13	0.532	2
					RMS= 3.4 10 ² cm ⁻¹				
H ₂ EF → B 22-12					H ₂ EF → B 22-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	9902.67	9902.69	0.796	3	P 4	9000.93	9000.94	0.149	1
P 4	9941.76	9941.75	3.841	-1	P 3	9026.78			
P 3	9943.84	9943.86	4.027	2	P 2	9056.04			
P 2	9984.23	9984.23	3.338	0	P 1	9084.97	9084.93	6.471	-4
P 1	10016.84				R 0	9126.42			
R 0	10059.84	10059.84	2.708	0	R 1	9143.83			
R 1	10075.71	10075.75	1.189	4	R 2	9164.23			
R 2	10092.41				R 3	9181.78	9181.73	0.009	-5
R 3	10098.85				R 4	9186.86			
R 4	10127.68				RMS= 3.8 10 ² cm ⁻¹				
RMS= 1.6 10 ² cm ⁻¹									
H ₂ EF → B 23-2					H ₂ EF → B 23-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	21187.34	21187.31	0.425	-3	P 4	20251.94	20251.94	0.374	0
P 5	21297.76				P 3	20314.63	20314.60	0.102	-3
P 4	21484.53	21484.53	0.532	0	R 4	20327.38	20327.39	0.182	1
P 3	21552.76	21552.69	0.130	-7	R 3	20368.55			
R 4	21559.96	21560.03	0.880	7	P 2	20377.39	20377.38	0.357	-1
R 3	21606.68	21606.70	1.174	2	P 1	20426.68	20426.64	0.046	-4
P 2	21619.76	21619.81	0.323	5	R 0	20478.54			
P 1	21671.94	21671.95	0.156	1	R 1	20482.37			
R 0	21725.25	21725.24	1.937	-1	R 2	20484.99			
R 2	21727.37	21727.36	2.324	-1	RMS= 1.3 10 ² cm ⁻¹				
R 1	21727.62	21727.69	0.662	7					
RMS= 3.4 10 ² cm ⁻¹									

H ₂ EF → B 23-4					H ₂ EF → B 23-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	19051.82	19051.80	0.424	-2	P 4	17883.81	17883.81	0.845	0
P 3	19109.44	19109.44	0.227	0	P 3	17936.71	17936.62	0.159	-9
R 4	19127.26				R 4	17959.25	17959.22	0.208	-3
R 3	19163.36				R 3	17990.63	17990.62	2.189	-1
P 2	19168.31	19168.25	0.530	-6	P 2	17991.98	17991.94	0.813	-4
P 1	19214.99				P 1	18036.21	18036.28	0.158	7
R 0	19265.52	19265.58	0.196	6	R 0	18085.52	18085.47	0.090	-5
R 1	19270.67	19270.63	8.450	-4	R 1	18091.90	18091.87	0.408	-3
R 2	19275.92				R 2	18099.58	18099.56	0.649	-2
RMS= 3.7 10 ² cm ⁻¹					RMS= 2.7 10 ² cm ⁻¹				
H ₂ EF → B 23-8					H ₂ EF-B 23-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	14567.95	14567.94	0.329	-1	P 4	13526.29			
P 3	14608.76	14608.73	0.250	-3	P 3	13562.68			
R 4	14643.39				R 4	13601.72	13601.63	1.167	-9
P 2	14654.67	14654.62	0.230	-5	P 2	13605.27	13605.27	2.629	0
R 3	14662.68				R 3	13616.60			
P 1	14692.54	14692.50	0.223	-4	P 1	13640.88			
R 0	14738.63	14738.63	0.561	0	R 0	13685.82	13685.78	0.861	-4
R 1	14748.22				R 1	13696.57			
R 2	14762.27	14762.28	0.256	1	R 2	13712.88	13712.85	1.654	-3
RMS= 2.4 10 ² cm ⁻¹					RMS= 4.2 10 ² cm ⁻¹				
H ₂ EF → B 23-10					H ₂ EF → B 23-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	12506.93	12506.96	0.803	3	P 5	11390.19	11390.15	4.058	-4
P 3	12543.54				P 4	11529.62			
R 4	12582.36	12582.41	3.882	5	P 3	11559.04			
P 2	12584.77	12584.85	2.882	8	P 2	11596.33	11596.31	1.541	-2
R 3	12597.46	12597.49	1.062	3	R 4	11605.05	11605.08	0.225	3
P 1	12619.26				R 3	11612.96			
R 0	12663.62				P 1	11628.38	11628.40	0.967	2
R 1	12674.95				R 0	11671.53	11671.59	0.453	6
R 2	12692.37				R 1	11684.06	11684.00	0.318	-6
RMS= 5.5 10 ² cm ⁻¹					R 2	11703.94			
					RMS= 3.9 10 ² cm ⁻¹				

H ₂ EF → B 23-12					H ₂ EF → B 24-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	10447.52	10447.50	3.029	-2	P 6	21751.48	21751.50	1.652	2
P 3	10589.78	10589.69	1.525	-9	P 5	21884.95			
P 4	10590.37	10590.38	2.457	1	P 4	21979.45	21979.40	0.086	-5
P 2	10633.42	10633.42	3.059	0	P 3	22066.48	22066.39	0.060	-9
R 3	10643.70	10643.71	14.335	1	R 4	22124.10	22124.10	0.833	0
R 4	10665.80	10665.85	0.417	5	P 2	22135.11			
P 1	10665.96	10665.90	0.747	-6	P 1	22186.23			
R 0	10709.03	10709.02	2.398	-1	R 3	22193.87	22193.93	0.194	6
R 1	10721.65	10721.58	1.011	-7	R 2	22222.29	22222.34	0.888	5
R 2	10741.02				R 0	22240.59			
RMS= 2.9 10 ² cm ⁻¹					R 1	22241.34			
					RMS= 3.2 10 ² cm ⁻¹				
H ₂ EF → B 24-4					H ₂ EF → B 24-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	19346.74	19346.66	0.273	-8	P 6	18191.24	18191.23	5.764	-1
P 5	19465.17				P 5	18302.93	18302.88	1.117	-5
P 4	19546.74				P 4	18378.73	18378.71	2.035	-2
P 3	19623.16	19623.21	0.126	5	P 3	18450.43	18450.44	0.360	1
P 2	19683.66	19683.67	0.447	1	P 2	18507.32	18507.32	0.522	0
R 4	19691.39				R 4	18523.38	18523.43	0.635	5
P 1	19729.28	19729.19	0.267	-9	P 1	18550.51	18550.48	0.317	-3
R 3	19750.55	19750.57	0.580	2	R 3	18577.82	18577.81	3.320	-1
R 2	19770.84	19770.90	0.711	6	R 2	18594.50	18594.43	3.647	-7
R 0	19780.87	19780.91	0.320	4	R 0	18600.87	18600.84	1.813	-3
R 1	19784.39				R 1	18605.62	18605.58	4.744	-4
RMS= 5.6 10 ² cm ⁻¹					RMS= 3.6 10 ² cm ⁻¹				
H ₂ EF → B 24-6					H ₂ EF → B 24-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	17242.56				P 4	14021.21			
P 3	17309.80				P 3	14076.39	14076.42	0.180	3
P 2	17363.29				P 2	14120.61			
R 4	17387.22	17387.16	0.425	-6	P 1	14155.18			
P 1	17404.17				R 4	14165.86	14165.81	1.574	-5
R 3	17437.19	17437.24	1.115	5	R 0	14201.16			
R 2	17450.47	17450.55	0.235	8	R 3	14203.78	14203.79	0.007	1
R 0	17453.36				R 2	14207.80			
R 1	17459.28	17459.30	0.085	2	R 1	14210.29			
RMS= 5.1 10 ² cm ⁻¹					RMS= 5.1 10 ² cm ⁻¹				

H ₂ EF → B 24-11					H ₂ EF → B 24-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	12024.54	12024.55	0.673	1	P 4	11085.29	11085.28	0.948	-1
P 3	12072.76				P 3	11103.50	11103.44	3.564	-6
P 2	12111.67				P 2	11148.76	11148.76	3.792	0
P 1	12142.67				P 1	11180.25	11180.25	1.940	0
R 4	12169.19	12169.20	1.041	1	R 0	11224.37			
R 0	12186.87	12186.92	1.008	5	R 4	11229.94	11229.85	0.644	-9
R 1	12197.78				R 3	11230.89	11230.81	0.219	-8
R 2	12198.86	12198.86	1.174	0	R 1	11235.36			
R 3	12200.15				R 2	11235.94	11235.94	0.767	0
RMS= 2.9 10 ² cm ⁻¹					RMS= 3.7 10 ² cm ⁻¹				
H ₂ EF → B 24-13					H ₂ EF → B 25-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	10144.47	10144.47	2.841	0	P 6	21035.35	21035.36	0.095	1
P 3	10186.43	10186.46	1.431	3	P 5	21144.65	21144.64	0.626	-1
P 2	10220.57	10220.62	3.673	5	P 4	21269.67	21269.61	0.094	-6
P 1	10248.38	10248.38	5.963	0	P 3	21355.14			
R 4	10289.12				R 4	21393.39			
R 0	10290.96				P 2	21426.56	21426.57	0.164	1
R 1	10303.49	10303.52	0.821	3	R 3	21441.28	21441.27	0.165	-1
R 2	10307.76				P 1	21479.96			
R 3	10313.82	10313.77	4.960	-5	R 2	21502.72	21502.68	0.104	-4
RMS= 3.2 10 ² cm ⁻¹					R 1	21522.88	21522.90	0.062	2
					R 0	21527.71	21527.73	0.117	2
					RMS= 2.2 10 ² cm ⁻¹				
H ₂ EF → B 25-4					H ₂ EF → B 25-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	19848.62	19848.64	0.324	2	P 6	18693.11	18693.11	0.251	0
P 5	19950.71				P 5	18788.47	18788.44	0.697	-3
P 4	20069.55	20069.47	0.209	-8	P 4	18901.54	18901.50	0.120	-4
P 3	20149.95	20149.96	0.376	1	P 3	18977.22	18977.22	0.158	0
R 4	20193.27	20193.27	0.096	0	R 4	19025.26			
P 2	20217.48	20217.44	0.564	-4	P 2	19041.15	19041.14	0.421	-1
R 3	20236.08				R 3	19063.35	19063.39	0.319	4
P 1	20268.26				P 1	19089.49	19089.44	0.332	-5
R 2	20293.64	20293.63	0.254	-1	R 2	19117.31	19117.29	0.671	-2
R 1	20311.18	20311.21	0.259	3	R 1	19132.41	19132.38	0.285	-3
R 0	20314.69	20314.61	0.052	-8	R 0	19134.69	19134.71	0.535	2
RMS= 3.7 10 ² cm ⁻¹					RMS= 2.7 10 ² cm ⁻¹				

H ₂ EF → B 25-6					H ₂ EF → B 25-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	17657.75	17657.84	0.180	9	P 2	15703.84			
P 4	17765.37	17765.34	0.069	-3	R 4	15709.40			
P 3	17836.59				R 3	15735.41			
R 4	17889.09	17889.05	0.280	-4	P 1	15745.81	15745.82	2.560	1
P 2	17897.11	17897.09	0.934	-2	R 2	15780.00	15780.03	3.270	3
R 3	17922.73				R 0	15787.80	15787.80	6.401	0
P 1	17943.15	17943.17	0.768	2	R 1	15788.73	15788.74	6.124	1
R 2	17973.27	17973.33	0.536	5	RMS = 1.6 10² cm⁻¹				
R 1	17986.07	17986.06	3.371	-1					
R 0	17987.19	17987.17	0.778	-2					
RMS = 2.8 10² cm⁻¹									
H ₂ EF → B 25-9					H ₂ EF → B 25-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 4	14544.01				P 4	13524.65	13524.56	0.227	-9
P 3	14603.19				P 3	13584.05	13584.07	0.165	2
P 2	14654.44	14654.51	0.044	7	P 2	13633.94			
R 4	14667.73	14667.74	0.405	1	R 4	13648.37			
R 3	14689.32				R 3	13670.19			
P 1	14694.16				P 1	13672.54	13672.56	1.213	2
R 2	14730.60	14730.62	3.179	2	R 2	13710.10			
R 0	14734.99				R 0	13712.79	13712.85	1.654	6
R 1	14737.08				R 1	13715.46			
RMS = 2.1 10² cm⁻¹					RMS = 5.4 10² cm⁻¹				
H ₂ EF → B 25-11					H ₂ EF → B 25-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 2	12645.50	12645.44	0.314	-6	P 5	11520.24	11520.33	0.276	9
P 1	12681.66				P 4	11608.09			
R 0	12720.69				P 3	11630.29			
R 2	12721.66	12721.63	0.061	-3	P 2	11682.59	11682.59	1.218	0
R 1	12724.57	12724.56	1.008	-1	R 3	11716.43	11716.34	0.527	-9
RMS = 3.0 10² cm⁻¹					P 1	11719.24			
					R 4	11731.81	11731.88	3.442	7
					R 0	11758.20	11758.21	0.461	1
					R 2	11758.75	11758.74	0.305	-1
					R 1	11762.16	11762.13	0.013	-3
					RMS = 5.8 10² cm⁻¹				

H ₂ EF → B 25-13					H ₂ EF → B 26-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	10590.45	10590.38	1.296	-7	P 3	21795.74	21795.81	0.746	7
P 4	10667.27	10667.28	8.091	1	R 4	21848.18	21848.20	0.337	2
P 3	10713.22	10713.29	1.224	7	P 2	21880.51			
P 2	10754.40	10754.40	5.144	0	R 3	21900.01	21900.02	0.112	1
P 1	10787.36	10787.30	2.071	-6	R 2	21937.46	21937.45	0.434	0
R 4	10790.99	10790.99	6.795	0	P 1	21957.61			
R 3	10799.36	10799.42	1.891	6	R 1	21963.48	21963.55	0.059	7
R 0	10824.78	10824.77	0.978	-1	R 0	21981.66	21981.69	0.319	3
R 1	10830.28	10830.26	2.041	-2	RMS = 43 10 ⁻² cm ⁻¹				
R 2	10830.56	10830.55	1.682	-1					
RMS = 29 10 ⁻² cm ⁻¹									
H ₂ EF → B 26-5					H ₂ EF → B 26-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	19247.21	19247.19	0.224	-2	P 4	18200.11	18200.16	0.157	5
P 4	19336.28	19336.27	0.440	-1	P 3	18277.20			
P 3	19417.82	19417.83	0.388	1	R 4	18343.88	18343.88	0.736	0
R 4	19480.05	19480.03	0.532	-2	P 2	18351.06	18351.14	1.368	8
P 2	19495.10	19495.10	0.771	0	R 3	18381.47	18381.48	2.427	1
R 3	19522.09	19522.06	0.641	-3	R 2	18408.01	18408.01	1.651	0
R 2	19552.05	19552.05	0.632	0	P 1	18420.80	18420.79	3.514	-1
P 1	19567.14				R 1	18426.67	18426.65	1.822	-2
R 1	19573.01	19573.01	0.501	0	R 0	18441.14	18441.14	0.904	0
R 0	19588.64	19588.64	0.561	0	RMS = 30 10 ⁻² cm ⁻¹				
RMS = 14 10 ⁻² cm ⁻¹									
H ₂ EF → B 26-7					H ₂ EF → B 26-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	16930.29	16930.30	0.035	1	P 5	15945.38	15945.40	4.399	2
P 5	17017.22				P 4	16020.42	16020.45	2.882	3
P 4	17095.68	17095.66	1.312	-2	P 3	16089.88			
P 3	17168.51				P 2	16157.78			
P 2	17239.06				R 4	16164.19	16164.27	0.195	8
R 4	17239.45				R 3	16194.15			
R 3	17272.78	17272.78	0.427	0	R 2	16214.74	16214.68	1.184	-6
R 2	17296.01	17296.03	0.990	2	P 1	16223.46			
P 1	17306.51	17306.55	0.756	4	R 1	16229.34	16229.33	1.434	-1
R 1	17312.38	17312.44	1.157	6	R 0	16241.75	16241.83	1.742	8
R 0	17325.66	17325.68	2.164	2	RMS = 43 10 ⁻² cm ⁻¹				
RMS = 34 10 ⁻² cm ⁻¹									

H ₂ EF → B 26-11					H ₂ EF → B 26-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	12921.65	12921.68	0.191	3	P 4	12042.83	12042.84	0.681	1
P 4	12982.09				P 3	12070.89	12070.89	1.647	0
P 3	13040.15	13040.13	0.806	-2	P 2	12136.54			
P 2	13099.45	13099.49	3.235	4	R 3	12175.16	12175.16	0.851	0
R 4	13125.86				R 4	12186.60	12186.59	1.109	-1
R 3	13144.42				R 2	12193.49			
R 2	13156.40				P 1	12196.89			
P 1	13159.31	13159.36	1.099	5	R 1	12202.76			
R 1	13165.18				R 0	12212.15			
R 0	13174.64				RMS= 0.5 10 ² cm ⁻¹				
RMS= 3.6 10 ² cm ⁻¹									
H ₂ EF → B 26-13					H ₂ EF → B 27-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	11049.19	11049.23	0.199	4	P 4	21019.75	21019.67	0.050	-8
P 4	11102.01	11101.96	1.977	-5	P 3	21097.76	21097.77	1.358	1
P 3	11153.82				R 4	21137.71			
P 2	11208.35				P 2	21163.30	21163.24	0.050	-6
R 4	11245.78	11245.81	0.338	3	R 3	21176.65			
R 3	11258.09	11258.08	0.533	-1	P 1	21212.57			
P 1	11265.01				R 2	21243.85			
R 2	11265.30	11265.32	0.793	2	R 1	21258.99	21259.02	0.136	2
R 1	11270.88				R 0	21260.51	21260.48	6.845	-3
R 0	11278.73	11278.75	0.590	2	RMS= 3.0 10 ² cm ⁻¹				
RMS= 3.9 10 ² cm ⁻¹									
H ₂ EF → B 27-6					H ₂ EF → B 27-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	18513.07	18513.06	0.661	-1	P 5	17499.05	17499.10	2.369	5
P 5	18598.32	18598.30	4.898	-2	P 4	17611.15	17611.11	0.032	-4
P 4	18715.58	18715.54	0.246	-4	P 3	17675.71	17675.74	0.196	3
P 3	18784.41	18784.42	1.919	1	R 4	17729.11			
R 4	18833.54				P 2	17730.93	17730.96	0.725	3
P 2	18842.93	18842.93	0.490	0	R 3	17754.61	17754.63	0.174	2
R 3	18863.30				P 1	17773.17	17773.15	0.578	-2
P 1	18887.46	18887.40	0.014	-6	R 2	17811.48			
R 2	18923.48				R 0	17817.53	17817.52	2.874	-1
R 0	18933.01	18932.95	0.262	-6	R 1	17819.59			
R 1	18933.88				RMS= 3.1 10 ² cm ⁻¹				
RMS= 2.1 10 ² cm ⁻¹									

H ₂ EF → B 27-10					H ₂ EF → B 27-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 4	14474.86	14474.90	0.668	4	P 4	13497.55	13497.54	0.488	-1
P 3	14531.86	14531.77	0.861	-9	P 3	13547.36			
P 2	14579.76	14579.75	0.660	-1	P 2	13591.32			
R 4	14592.82				R 4	13615.51			
R 3	14610.76				P 1	13625.96	13625.89	0.317	-7
P 1	14616.85	14616.84	1.402	-1	R 3	13626.25			
R 0	14658.61				R 0	13666.51			
R 2	14660.30				R 2	13671.87	13671.86	0.881	-1
R 1	14663.27				R 1	13672.39			
RMS= 5.0 10 ² cm ⁻¹					RMS= 3.4 10 ² cm ⁻¹				
H ₂ EF → B 27-12					H ₂ EF → B 27-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	12460.81	12460.80	1.838	-1	P 4	11617.48	11617.51	0.763	3
P 4	12558.30				P 3	11661.03	11661.02	0.855	-1
P 3	12578.10	12578.04	1.455	-6	P 2	11700.22			
P 2	12628.41				P 1	11731.67	11731.63	3.235	-4
R 3	12656.99				R 4	11735.44	11735.47	3.294	3
P 1	12663.55				R 3	11739.93			
R 4	12676.26	12676.32	0.774	6	R 0	11770.60			
R 0	12704.02				R 1	11778.09			
R 2	12708.95	12708.97	0.013	2	R 2	11780.77	11780.77	2.906	0
R 1	12709.97				RMS= 2.8 10 ² cm ⁻¹				
H ₂ EF → B 28-4					H ₂ EF → B 28-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	21326.81	21326.72	0.069	-9	P 6	20064.24	20064.24	0.121	0
P 4	21431.87	21431.87	0.240	0	P 5	20164.57			
P 3	21507.61	21507.60	0.115	-1	P 4	20263.86	20263.85	0.513	-1
R 4	21564.40	21564.40	0.077	0	P 3	20334.88	20334.92	0.073	4
P 2	21571.65	21571.62	0.135	-3	P 2	20395.32	20395.29	0.470	-3
R 3	21612.19				R 4	20396.39			
P 1	21619.88	21619.81	0.323	-7	R 3	20439.46			
R 2	21655.97				P 1	20441.11			
R 1	21668.85	21668.84	0.047	-1	R 2	20479.63	20479.67	0.318	4
R 0	21668.86	21668.84	0.047	-2	R 0	20488.86			
RMS= 4.8 10 ² cm ⁻¹					R 1	20490.07			
					RMS= 2.6 10 ² cm ⁻¹				

H ₂ EF → B 28-6					H ₂ EF → B 28-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	19127.69	19127.67	0.601	-2	P 6	17846.64	17846.63	2.253	-1
P 3	19194.26	19194.26	0.414	0	P 5	17934.59			
P 2	19251.28	19251.26	0.433	-2	P 4	18023.27	18023.27	0.503	0
R 4	19260.22				P 3	18085.57			
P 1	19294.77	19294.76	0.510	-1	P 2	18139.28			
R 3	19298.83				R 4	18155.80	18155.81	1.079	1
R 2	19335.60	19335.60	0.458	0	P 1	18180.47	18180.56	1.378	9
R 0	19341.36	19341.34	0.408	-2	R 3	18190.14	18190.15	4.360	1
R 1	19343.74	19343.75	0.136	1	R 2	18223.59			
RMS= 1.2 10 ² cm ⁻¹					R 0	18225.88	18225.88	2.208	0
					R 1	18229.44			
					RMS= 3.1 10 ² cm ⁻¹				
H ₂ EF → B 28-9					H ₂ EF → B 28-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	15827.16	15827.14	6.448	-2	P 3	13957.21	13957.18	0.545	-3
P 4	15906.33	15906.34	5.073	1	P 2	13999.67			
P 3	15960.85	15960.86	2.001	1	P 1	14033.27	14033.28	0.685	1
P 2	16008.61	16008.58	1.871	-3	R 4	14042.20			
R 4	16038.87				R 3	14061.79	14061.79	0.116	0
P 1	16045.78				R 0	14074.86	14074.92	0.065	6
R 3	16065.42	16065.36	1.099	-6	R 1	14082.24			
R 0	16089.16				R 2	14083.99			
R 2	16092.92	16092.96	1.797	4	RMS= 2.8 10 ² cm ⁻¹				
R 1	16094.74								
RMS= 2.5 10 ² cm ⁻¹									
H ₂ EF → B 28-12									
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹					
P 4	12970.41	12970.47	1.353	6					
P 3	12987.95	12987.88	0.496	-7					
P 2	13036.76								
P 1	13070.85								
R 3	13092.53	13092.54	3.235	1					
R 4	13102.95	13103.03	0.628	8					
R 0	13112.37	13112.38	1.635	1					
R 1	13119.82	13119.81	2.175	-1					
R 2	13121.07								
RMS= 3.6 10 ² cm ⁻¹									

TRANSITIONS

$$\mathbf{GK \rightarrow B}$$

$$\mathbf{H \rightarrow B}$$

$$\mathbf{I \rightarrow B}$$

$$\mathbf{J \rightarrow B}$$

H ₂ GK → B 0-0					H ₂ GK → B 0-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	21071.88	21071.90	0.102	2	P 5	19780.95	19780.91	0.639	-4
P 4	21173.56	21173.57	0.429	1	P 4	19873.88	19873.96	0.251	8
P 3	21259.06	21259.03	0.249	-3	P 3	19952.12	19952.15	1.168	3
R 5	21279.09				R 5	19988.16			
P 2	21330.64	21330.65	0.515	1	P 2	20018.08	20018.07	0.728	-1
R 4	21355.32	21355.35	0.544	3	R 4	20055.64	20055.64	2.117	0
P 1	21386.47	21386.52	0.335	5	P 1	20070.08	20070.07	0.745	-1
R 3	21410.56	21410.57	0.391	1	R 3	20103.62	20103.61	0.535	-1
R 2	21440.29	21440.29	0.477	0	R 2	20127.73			
R 0	21446.79	21446.78	0.472	-1	R 0	20128.46	20128.45	0.922	-1
R 1	21451.40	21451.39	0.455	-1	R 1	20135.01	20135.00	0.728	-1
RMS= 2.2 10 ² cm ⁻¹					RMS= 2.4 10 ² cm ⁻¹				
H ₂ GK → B 0-2					H ₂ GK → B 0-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 7	18296.58	18296.50	1.678	-8	P 7	17087.36	17087.44	0.083	8
P 6	18417.45	18417.38	2.890	-7	P 6	17199.44	17199.42	0.066	-2
P 5	18522.90	18522.90	0.715	0	P 5	17297.07	17297.05	0.553	-2
P 4	18608.31	18608.28	1.301	-3	P 4	17375.72	17375.70	1.129	-2
P 3	18680.32	18680.30	0.436	-2	P 3	17442.19	17442.14	0.690	-5
R 5	18730.12				P 2	17499.12	17499.10	2.369	-2
P 2	18741.50	18741.48	0.569	-2	R 5	17504.28			
R 4	18790.06				P 1	17544.99			
P 1	18790.25	18790.21	0.195	-4	R 4	17557.48	17557.44	0.160	-4
R 3	18831.82	18831.84	0.487	2	R 3	17593.69			
R 0	18846.99	18846.99	0.643	0	R 0	17600.28	17600.23	0.718	-5
R 2	18851.15	18851.14	0.960	-1	R 2	17608.77	17608.76	0.806	-1
R 1	18855.18	18855.17	0.678	-1	R 1	17609.92			
RMS= 4.9 10 ² cm ⁻¹					RMS= 3.1 10 ² cm ⁻¹				
H ₂ GK → B 0-4					H ₂ GK → B 0-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 7	15908.76	15908.74	4.205	-2	P 6	14857.20	14857.21	0.907	1
P 6	16012.71	16012.72	1.678	1	P 5	14940.88	14940.88	0.165	0
P 5	16103.13				P 4	15007.59	15007.62	0.381	3
P 4	16175.60	16175.61	0.152	1	P 3	15064.26			
P 3	16236.99	16237.06	0.245	7	P 2	15113.71			
P 2	16290.05				R 5	15148.10			
R 5	16310.34				P 1	15154.53			
P 1	16333.30				R 4	15189.35			
R 4	16357.36				R 0	15207.26			
R 0	16387.26	16387.17	0.109	-9	R 3	15215.77			
R 3	16388.50				R 1	15219.46			
R 1	16398.23				R 2	15223.36			
R 2	16399.70	16399.77	1.289	7	RMS= 1.7 10 ² cm ⁻¹				
RMS= 3.6 10 ² cm ⁻¹									

H ₂ GK → B 0-6					H ₂ GK → B 0-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	13810.16	13810.15	0.178	-1	P 4	12767.00	12767.00	0.269	0
P 4	13871.42	13871.43	0.941	1	P 3	12814.95	12814.99	0.991	4
P 3	13923.64	13923.64	0.699	0	P 2	12857.68	12857.71	14.807	3
P 2	13969.68	13969.69	3.545	1	P 1	12893.89			
P 1	14008.19	14008.19	0.223	0	R 5	12918.11			
R 5	14017.37				R 0	12944.28	12944.21	3.656	-7
R 4	14053.18	14053.19	0.120	1	R 4	12948.76			
R 0	14059.76	14059.75	0.405	-1	R 1	12958.82			
R 1	14073.12				R 3	12966.45			
R 3	14075.14				R 2	12967.33			
R 2	14079.33	14079.29	0.575	-4	RMS= 44 10 ² cm ⁻¹				
RMS= 1.3 10 ² cm ⁻¹									
H ₂ GK → B 0-8					H ₂ GK → B 0-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	11639.05				P 5	10603.47	10603.53	1.645	6
P 4	11691.73	11691.74	1.016	1	P 4	10650.07	10650.07	3.084	0
P 3	11736.32	11736.32	1.038	0	P 3	10690.23	10690.22	1.044	-1
P 2	11776.40	11776.41	0.882	1	P 2	10727.01	10727.01	2.083	0
P 1	11810.85				P 1	10759.20	10759.25	2.000	5
R 5	11846.27	11846.30	12.568	3	R 0	10807.55	10807.56	1.745	1
R 0	11860.37	11860.32	3.206	-5	R 5	10810.68			
R 4	11873.49	11873.49	4.417	0	R 1	10824.13	10824.13	6.283	0
R 1	11875.78	11875.81	4.008	3	R 4	10831.82			
R 2	11886.05	11886.06	3.693	1	R 2	10836.66	10836.64	7.188	-2
R 3	11887.82	11887.84	3.278	2	R 3	10841.74	10841.65	1.855	-9
RMS= 2.8 10 ² cm ⁻¹					RMS= 3.1 10 ² cm ⁻¹				
H ₂ GK → B 0-11					H ₂ GK-B 0-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	8615.33	8615.37	1.441	4	P 5	7672.66	7672.72	0.646	6
P 4	8653.40	8653.41	2.880	1	P 4	7714.15	7714.16	3.233	1
P 3	8686.60				P 3	7717.34	7717.33	1.410	-1
P 2	8718.07	8718.07	1.855	0	P 2	7755.15	7755.15	4.431	0
P 1	8746.69	8746.75	0.675	6	P 1	7784.27	7784.28	0.817	1
R 0	8793.26	8793.29	0.553	3	R 0	7830.76	7830.75	1.187	-1
R 1	8811.62	8811.61	0.570	-1	R 1	7849.20			
R 5	8822.54				R 2	7864.80	7864.81	3.700	1
R 2	8827.72				R 3	7868.84	7868.84	0.534	0
R 4	8835.16	8835.16	1.139	0	R 5	7879.87			
R 3	8838.10	8838.06	3.316	-4	R 4	7895.90	7895.93	0.346	3
RMS=3.0 10 ² cm ⁻¹					RMS= 1.5 10 ² cm ⁻¹				

H ₂ GK → B 0-13					H ₂ GK → B 1-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 4	6773.32	6773.30	3.007	-2	P 7	21141.05			
P 3	6800.27				P 9	21148.25	21148.27	0.188	2
P 2	6826.97				P10	21175.96	21175.98	0.347	2
P 1	6852.40	6852.46	0.776	6	P 6	21176.00	21175.98	0.347	-2
R 0	6897.35	6897.35	1.411	0	P 5	21232.12	21232.14	0.074	2
R 1	6917.33				P 4	21306.70	21306.72	0.474	2
R 2	6936.62	6936.61	0.643	-1	P 3	21393.06	21393.07	0.399	1
R 5	6950.07				P 2	21485.46	21485.48	0.531	2
R 3	6951.77	6951.75	4.788	-2	P 1	21570.30	21570.29	1.078	-1
R 4	6955.08				R 3	21570.80	21570.80	0.557	0
RMS= 26 10 ² cm ⁻¹					R 2	21573.43	21573.44	0.512	1
					R 4	21583.60	21583.61	0.476	1
					R 1	21585.40	21585.40	0.505	0
					R 0	21601.60	21601.62	0.498	2
					R 5	21614.07	21614.07	0.478	0
					R 6	21646.90	21646.90	0.426	0
					R 7	21740.13	21740.13	0.344	0
					RMS= 13 10 ² cm ⁻¹				
H ₂ GK → B 1-1					H ₂ GK → B 1-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 8	19854.39	19854.44	0.099	5	P 8	18625.30	18625.27	4.300	-3
P 7	19871.19	19871.21	0.350	2	P 7	18631.55	18631.55	2.982	0
P 6	19895.07	19895.07	0.364	0	P 6	18645.73	18645.81	0.139	8
P 9	19902.76				P 5	18683.14			
P 5	19941.18	19941.18	0.388	0	P 4	18741.45	18741.48	1.137	3
P 4	20007.02	20007.02	0.459	0	P 3	18814.31	18814.36	1.133	5
P 3	20086.11	20086.10	0.390	-1	P 2	18896.32	18896.30	0.892	-2
P 2	20172.90	20172.91	0.472	1	P 1	18974.08	18974.08	0.724	0
P 1	20253.91	20253.89	0.416	-2	R 2	18984.29	18984.28	1.205	-1
R 2	20260.87	20260.87	0.534	0	R 1	18989.18	18989.16	1.140	-2
R 3	20263.86	20263.85	0.513	-1	R 3	18992.06	18992.05	1.144	1
R 1	20269.01	20269.00	0.486	-1	R 0	19001.80	19001.80	1.001	0
R 0	20283.28	20283.29	0.507	1	R 4	19018.35	19018.34	1.273	-1
R 4	20283.92	20283.93	0.566	1	R 5	19065.09	19065.08	0.983	-1
R 5	20323.13	20323.12	0.433	-1	R 6	19116.63	19116.61	1.166	-2
R 6	20365.98	20365.96	0.445	-2	R 7	19230.63	19230.61	0.688	-2
R 7	20470.26	20470.25	0.316	-1	R 8	19333.76	19333.78	0.310	2
R 8	20562.85				RMS= 23 10 ² cm ⁻¹				
RMS= 14 10 ² cm ⁻¹									

H ₂ GK → B 1-3					H ₂ GK → B 1-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 7	17422.34	17422.33	0.090	-1	P 5	13970.40			
P 8	17425.72				P 4	14004.56			
P 6	17427.72	17427.66	0.049	-6	P 3	14057.64			
P 5	17457.30	17457.25	2.043	-5	P 2	14124.50			
P 9	17495.65				P 1	14192.02			
P 4	17508.86				R 1	14207.12			
P 3	17576.19	17576.17	0.885	-2	R 2	14212.47	14212.51	0.535	4
P 2	17653.94	17653.95	1.461	1	R 0	14214.57	14214.66	0.240	9
P 1	17728.82	17728.79	0.753	-3	R 3	14235.38			
R 2	17741.91	17741.90	1.082	-1	R 4	14281.47	14281.46	0.178	-1
R 1	17743.92	17743.90	1.137	-2	R 5	14352.35	14352.40	3.193	5
R 3	17753.93	17753.92	0.823	-1	RMS=4.8 10 ² cm ⁻¹				
R 0	17755.09	17755.09	1.264	0					
R 4	17785.76	17785.75	1.457	-1					
R 5	17839.25	17839.22	0.771	-3					
R 6	17898.62	17898.61	0.578	-1					
R 7	18021.41	18021.40	2.884	-1					
R 8	18134.17	18134.16	0.110	-1					
RMS= 2.3 10 ² cm ⁻¹									
H ₂ GK → B 1-7					H ₂ GK → B 1-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	12867.88	12867.96	0.619	8	P 4	11824.88	11824.89	0.941	1
P 5	12871.13	12871.10	6.684	-3	P 3	11870.32	11870.24	0.798	-8
P 4	12900.14				P 2	11931.22	11931.15	1.018	-7
P 3	12948.95				P 1	11994.68	11994.64	1.362	-4
P 2	13012.50				R 1	12009.78	12009.83	0.534	5
P 1	13077.72	13077.77	2.750	5	R 0	12015.19	12015.19	0.660	0
R 1	13092.82	13092.88	3.235	6	R 2	12019.19	12019.13	1.584	-6
R 0	13099.10	13099.04	3.449	-6	R 3	12048.06	12047.98	0.260	-8
R 2	13100.47	13100.49	3.537	2	R 4	12101.78			
R 3	13126.69	13126.69	0.863	0	RMS= 5.4 10 ² cm ⁻¹				
R 4	13177.04	13177.04	0.882	0					
R 5	13253.08								
R 6	13338.78	13338.71	3.294	-7					
RMS= 4.8 10 ² cm ⁻¹									
H ₂ GK → B 1-9					H ₂ GK → B 2-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	10783.21	10783.24	0.904	3	P 6	21497.56	21497.58	0.406	2
P 3	10824.23				P 5	21598.13	21598.16	3.754	3
P 2	10881.83	10881.85	0.746	2	P 2	21645.51	21645.52	0.457	1
P 1	10943.02	10942.98	3.133	-4	P 4	21664.31	21664.31	0.469	0
R 1	10958.12	10958.14	5.642	2	P 1	21699.47			
R 0	10962.37	10962.37	3.455	0	P 3	21728.94	21728.95	0.407	1
R 2	10969.80	10969.81	3.089	1	R 0	21755.88	21755.88	0.420	0
R 3	11001.97				R 4	21886.41	21886.45	0.310	4
R 4	11060.11	11060.14	0.820	3	R 1	21911.83	21911.86	0.233	3
RMS= 2.4 10 ² cm ⁻¹					R 2	21918.16	21918.16	0.496	0
					R 3	21920.80	21920.83	0.296	3
					RMS= 2.5 10 ² cm ⁻¹				

H ₂ GK → B 2-2					H ₂ GK → B 2-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	20248.22	20248.23	0.338	1	P 6	17843.48	17843.47	0.866	-1
P 5	20340.08	20340.04	0.239	-4	P 2	17917.47	17917.46	0.782	-1
P 2	20368.92	20368.91	0.351	-1	P 5	17920.30	17920.32	0.786	2
P 4	20398.73	20398.71	0.379	-2	P 1	17962.69	17962.67	0.149	-2
P 1	20419.64	20419.64	0.190	0	P 4	17966.03	17966.05	0.887	2
P 3	20457.14	20457.13	0.404	-1	P 3	18013.82	18013.80	2.506	-2
R 0	20474.41	20474.40	0.160	-1	R 0	18014.68	18014.68	1.371	0
R 4	20620.83	20620.92	0.019	9	R 1	18175.05	18175.04	1.602	-1
R 1	20632.00				R 4	18188.13	18188.11	0.940	-2
R 2	20641.58				R 2	18190.13	18190.15	4.360	2
R 3	20649.00				R 3	18205.68	18205.67	0.736	0
RMS= 2.1 10 ⁻² cm ⁻¹					RMS= 1.6 10 ⁻² cm ⁻¹				
H ₂ GK → B 2-6					H ₂ GK → B 2-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 2	15597.10				P 6	14470.36	14470.42	0.321	6
P 5	15627.34				P 2	14485.10			
P 1	15637.57				P 1	14523.28			
P 4	15661.85				P 5	14528.08	14528.15	0.584	7
R 0	15687.18				P 4	14557.43	14557.44	0.912	1
P 3	15700.46				R 0	14571.70			
R 1	15849.94	15849.95	1.754	1	P 3	14591.77	14591.80	0.711	3
R 2	15869.76	15869.69	4.705	-7	R 1	14735.64			
R 4	15883.95	15883.95	4.746	0	R 2	14757.75			
R 3	15892.32	15892.35	4.490	3	R 4	14779.53			
RMS= 4.1 10 ⁻² cm ⁻¹					R 3	14783.63			
					RMS= 4.5 10 ⁻² cm ⁻¹				
H ₂ GK → B 2-8					H ₂ GK → B 2-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 2	13403.82				P 2	12354.43	12354.47	2.983	4
P 1	13440.24				P 1	12388.58	12388.58	1.384	0
P 4	13482.16	13482.19	0.133	3	P 5	12420.65	12420.65	0.959	0
R 0	13487.79				R 0	12434.98			
P 3	13513.14	13513.09	1.260	-5	P 4	12440.49	12440.49	0.841	0
R 1	13652.60				P 3	12467.05			
R 2	13676.48	13676.43	0.970	-5	R 1	12600.95			
R 4	13704.26				R 2	12627.08	12627.08	0.789	0
R 3	13705.00	13705.01	1.242	1	R 3	12658.92			
RMS= 3.8 10 ⁻² cm ⁻¹					R 4	12662.59	12662.59	0.639	0
					RMS= 2.4 10 ⁻² cm ⁻¹				

H ₂ GK → B 2-10					H ₂ GK → B 2-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹
P 2	11333.93				P 2	10345.49			
P 1	11366.96				P 1	10376.08			
R 0	11412.77				R 0	10420.68	10420.69	0.364	1
P 4	11421.14	11421.15	0.645	1	P 5	10432.51	10432.50	2.122	-1
P 3	11447.92				P 4	10443.83	10443.83	2.545	0
R 1	11579.33	11579.34	1.350	1	P 3	10463.42	10463.43	1.577	1
R 2	11606.58	11606.59	1.185	1	R 1	10588.44			
R 3	11639.78				R 2	10618.14			
R 4	11643.24				R 3	10655.28			
RMS= 1.0 10 ² cm ⁻¹					R 4	10665.93	10665.90	1.068	-3
					RMS= 1.4 10 ² cm ⁻¹				
H ₂ GK → B 2-13					H ₂ GK → B 3-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹
P 2	8454.39				P 9	21951.79	21951.79	0.494	0
P 1	8481.78				P 8	21958.47			
R 0	8524.77				P10	21985.24	21985.24	0.588	0
P 5	8560.04				P 7	21991.83	21991.79	0.069	-4
P 4	8563.75	8563.77	1.318	2	P 6	22043.66			
P 3	8577.09	8577.09	0.260	0	P 5	22115.92			
R 1	8694.15	8694.12	4.213	-3	P 4	22207.54	22207.55	0.499	1
R 2	8727.04	8727.09	0.588	5	P 3	22304.72	22304.80	0.289	8
R 3	8768.95				P 2	22398.67			
R 4	8785.85				R 4	22432.51	22432.53	0.208	2
RMS= 2.6 10 ² cm ⁻¹					R 3	22438.59	22438.63	0.203	4
					R 5	22443.78	22443.77	0.092	-1
					R 2	22461.39	22461.46	0.300	7
					R 6	22470.06			
					P 1	22485.85			
					R 1	22487.61	22487.53	0.064	-8
					R 0	22509.05	22509.02	0.043	-3
					R 7	22519.29			
					R 8	22604.72			
					RMS= 4.0 10 ² cm ⁻¹				
H ₂ GK → B 3-2					H ₂ GK → B 3-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹
P 8	20729.38				P 8	19529.80	19529.75	0.285	-5
P 7	20752.20				P 7	19542.98	19543.01	0.237	3
P 6	20794.31				P 6	19576.31	19576.30	0.496	-1
P 5	20857.88				P 5	19632.04	19632.05	0.417	1
P 4	20941.96				P 4	19709.38	19709.38	0.423	0
P 3	21032.92				P 3	19794.79	19794.79	0.486	0
P 2	21122.09	21122.16	0.397	7	P 2	19879.71	19879.72	0.627	1
R 3	21166.79				R 3	19928.67	19928.65	0.558	-2
R 4	21166.93	21166.92	0.350	-1	R 4	19934.35	19934.34	0.550	-1
R 2	21184.81	21184.82	0.476	1	R 2	19942.43	19942.43	0.561	0
R 5	21185.73	21185.79	0.130	6	R 5	19959.90	19959.93	0.485	3
P 1	21206.02	21206.00	0.116	-2	P 1	19960.76	19960.71	0.401	-5
R 1	21207.78	21207.79	0.457	1	R 1	19962.52	19962.52	0.552	0
R 6	21220.72	21220.72	0.297	0	R 0	19980.86	19980.85	0.524	-1
R 0	21227.57	21227.58	0.486	1	R 6	20002.71	20002.67	0.482	-4
R 7	21279.65				R 7	20070.43			
R 8	21375.63	21375.61	0.215	-2	R 8	20176.05	20176.00	0.271	-5
RMS= 3.2 10 ² cm ⁻¹					RMS= 2.6 10 ² cm ⁻¹				

H ₂ GK → B 3-4					H ₂ GK → B 3-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 7	18364.38	18364.40	5.176	2	P 6	17234.07	17234.06	0.848	-1
P 6	18389.58	18389.58	7.943	0	P 5	17275.86	17275.81	0.157	-5
P 5	18438.10				P 4	17341.25	17341.23	1.167	-2
P 4	18509.26	18509.25	0.675	-1	P 3	17416.87			
P 3	18589.60	18589.62	4.545	2	P 2	17494.30	17494.28	1.050	-2
P 2	18670.64				R 3	17550.74	17550.74	1.134	0
R 3	18723.47	18723.47	0.426	0	R 2	17557.02	17557.02	1.282	0
R 2	18733.36	18733.34	0.603	-2	R 4	17566.22	17566.21	1.184	-1
R 4	18734.22	18734.22	0.572	0	P 1	17570.30	17570.23	0.384	-7
P 1	18749.07	18749.09	0.108	2	R 1	17572.06			
R 1	18750.83	18750.81	0.679	-2	R 0	17587.85			
R 5	18765.95	18766.02	0.398	7	R 5	17603.71	17603.74	0.815	3
R 0	18767.85	18767.84	0.587	-1	R 6	17660.47	17660.46	1.008	-1
R 6	18815.98	18816.05	2.375	7	RMS= 2.2 10 ² cm ⁻¹				
R 7	18891.83								
RMS= 3.0 10 ² cm ⁻¹									
H ₂ GK → B 3-6					H ₂ GK → B 3-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	16109.58	16109.63	0.205	5	P 4	14025.39	14025.38	0.423	-1
P 5	16145.14	16145.23	0.187	9	P 3	14088.92	14088.84	0.569	-8
P 4	16205.08				P 2	14156.99	14156.97	0.283	-2
P 3	16276.24				R 2	14219.71			
P 2	16350.27	16350.36	0.201	9	R 3	14222.80			
R 3	16410.12	16410.09	0.892	-3	P 1	14226.62	14226.54	0.333	-8
R 2	16412.99				R 1	14228.38			
P 1	16423.96				R 0	14240.95	14240.90	0.146	-5
R 1	16425.72	16425.71	1.284	-1	R 4	14250.36			
R 4	16430.05	16430.05	1.011	0	RMS= 6.0 10 ² cm ⁻¹				
R 0	16440.34	16440.32	0.154	-2					
R 5	16472.99	16473.01	0.063	2					
R 6	16535.99	16536.06	0.195	7					
RMS= 3.7 10 ² cm ⁻¹									
H ₂ GK → B 3-10					H ₂ GK → B 3-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 4	11964.37	11964.32	0.415	-5	P 5	10950.30	10950.31	3.270	1
P 3	12023.70				P 4	10987.06	10987.05	1.061	-1
P 2	12087.09	12087.00	2.882	-9	P 3	11039.20	11039.22	1.964	2
R 2	12149.81	12149.85	0.357	4	P 2	11098.66	11098.66	1.121	0
P 1	12153.35	12153.33	0.238	-2	R 2	11161.38	11161.40	4.505	2
R 1	12155.11				P 1	11162.46			
R 3	12157.58				R 1	11164.22	11164.29	1.387	7
R 0	12165.94	12165.95	0.257	1	R 3	11173.07	11173.11	3.732	3
R 4	12189.33				R 0	11173.85	11173.86	0.609	1
RMS= 7.4 10 ² cm ⁻¹					R 4	11212.02			
					R 5	11278.16	11278.15	1.002	-1
					RMS= 2.9 10 ² cm ⁻¹				

H ₂ GK → B 3-12					H ₂ GK → B 3-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 2	10135.74	10135.79	9.023	5	P 5	9077.84			
R 2	10198.46	10198.47	1.730	1	P 4	9106.98			
P 1	10200.05				P 3	9152.87			
R 1	10201.81	10201.81	0.246	0	P 2	9207.55			
R 0	10211.35	10211.36	0.346	1	P 1	9268.17	9268.15	18.219	-2
RMS= 42 10 ² cm ⁻¹					R 1	9269.93	9269.98	2.496	5
					R 2	9270.28			
					R 0	9277.94			
					R 3	9286.75			
					R 4	9331.95			
					R 5	9405.69	9405.73	0.392	4
					RMS= 27 10 ² cm ⁻¹				
H ₂ GK → B 4-2					H ₂ GK → B 4-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	22121.95	22121.94	0.454	-1	P 4	20925.80			
P 5	22127.93	22127.91	0.722	-2	P 3	20955.78			
P 4	22158.39	22158.41	0.556	2	P 2	20985.58			
P 3	22193.90	22193.93	0.194	3	P 1	21016.01	21015.93	0.211	-8
P 2	22227.95	22227.95	0.374	0	R 0	21086.73	21086.70	0.382	-3
P 1	22261.27	22261.26	0.078	-1	R 1	21123.51	21123.50	0.233	-1
R 0	22333.44	22333.50	0.223	6	R 2	21158.85	21158.86	0.253	1
R 1	22368.77				R 3	21198.72	21198.75	0.126	3
R 2	22401.23	22401.25	0.041	2	R 4	21261.99	21261.98	0.130	-1
R 3	22436.85	22436.94	0.187	9	RMS= 38 10 ² cm ⁻¹				
R 4	22494.57								
RMS= 34 10 ² cm ⁻¹									
H ₂ GK → B 4-4					H ₂ GK → B 4-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	19708.15	19708.14	0.537	-1	P 5	18545.91	18545.89	0.571	-2
P 6	19717.22	19717.19	0.400	-3	P 4	18557.67			
P 4	19725.68	19725.68	0.541	0	P 6	18561.71			
P 3	19750.58	19750.57	0.580	-1	P 3	18577.85	18577.82	3.676	-3
P 2	19776.50	19776.49	0.572	-1	P 2	18600.17	18600.12	3.868	-5
P 1	19804.32	19804.27	0.421	-5	P 1	18625.54	18625.62	2.100	8
R 0	19873.71	19873.71	0.497	0	R 0	18693.71			
R 1	19911.81	19911.80	0.530	-1	R 1	18733.04			
R 2	19949.78	19949.77	0.497	-1	R 2	18773.44	18773.53	0.895	9
R 3	19993.52	19993.51	0.371	-2	R 3	18820.79	18820.80	2.732	1
R 4	20061.86	20061.83	0.380	-3	R 4	18893.86			
RMS= 21 10 ² cm ⁻¹					RMS= 49 10 ² cm ⁻¹				

H ₂ GK → B 4-6					H ₂ GK → B 4-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	17415.19	17415.17	0.765	-2	P 5	16315.92	16316.00	1.308	8
P 4	17421.50	17421.54	0.982	4	P 4	16317.08	16317.07	0.846	-1
P 6	17437.22	17437.24	1.115	2	P 3	16328.54	16328.49	0.143	-5
P 3	17437.23	17437.24	1.115	1	P 6	16344.10	16344.11	0.732	1
P 2	17456.13	17456.12	1.162	-1	P 2	16344.13	16344.11	0.732	-2
P 1	17479.21	17479.14	0.864	-7	P 1	16364.91	16364.90	0.870	-1
R 0	17546.21	17546.20	1.346	-1	R 0	16430.73	16430.71	0.555	-2
R 1	17586.70	17586.70	0.841	0	R 1	16472.41	16472.38	0.122	-3
R 2	17629.41	17629.40	1.392	-1	R 2	16517.41			
R 3	17680.17	17680.15	1.004	-2	R 3	16571.48	16571.49	4.359	1
R 4	17757.69	17757.69	0.790	0	R 4	16653.26			
RMS= 24 10 ² cm ⁻¹					RMS= 3.2 10 ² cm ⁻¹				
H ₂ GK → B 4-9					H ₂ GK → B 4-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	14200.15				P 4	13180.79			
P 3	14203.82	14203.79	0.007	-3	P 3	13184.69			
P 5	14208.50				P 2	13192.96			
P 2	14213.46				P 1	13208.59			
P 1	14230.21	14230.27	2.444	6	R 0	13271.81			
R 0	14294.01	14294.06	0.293	5	R 1	13316.09	13316.10	3.133	1
R 1	14337.71				R 2	13366.23			
R 2	14386.74				R 3	13427.63	13427.65	0.443	2
R 3	14446.76				R 4	13516.97	13516.95	1.254	-2
R 4	14536.33	14536.30	0.060	-3	RMS= 14 10 ² cm ⁻¹				
RMS= 5.8 10 ² cm ⁻¹									
H ₂ GK → B 4-12					H ₂ GK → B 4-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 3	11230.92				P 2	10313.42			
P 2	11241.61				P 3	10313.86	10313.77	1.021	-9
P 1	11255.29	11255.34	4.496	5	P 4	10323.41			
R 0	11317.22				P 1	10323.41			
R 1	11362.79	11362.76	0.265	-3	P 5	10347.89	10347.87	6.878	-2
R 2	11414.88	11414.89	0.513	1	R 0	10383.80	10383.84	0.013	4
R 3	11473.87	11473.86	0.297	-1	R 1	10430.91			
RMS= 4.0 10 ² cm ⁻¹					R 2	10486.70	10486.65	2.601	-5
					R 3	10556.80			
					R 4	10659.59			
					RMS= 4.1 10 ² cm ⁻¹				

H ₂ GK → B 5-3					H ₂ GK → B 5-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	21682.19	21682.20	0.074	1	P 6	19339.95	19339.91	0.450	-4
P 5	21757.11	21757.16	0.137	5	P 5	19400.93	19400.94	0.147	1
P 4	21829.98	21829.99	0.253	1	P 4	19461.85	19461.81	0.486	-4
P 3	21896.74				P 3	19518.81			
R 5	22025.17	22025.21	0.151	4	R 5	19668.99	19668.98	0.765	-1
R 4	22040.23	22040.20	0.151	-3	R 4	19672.10	19672.07	0.557	-3
R 3	22053.74	22053.66	0.388	-8	R 1	19674.00	19673.99	0.825	-1
R 2	22063.02	22063.01	0.455	-1	R 3	19675.81	19675.81	0.556	0
R 1	22064.47	22064.45	0.210	-2	R 2	19677.62	19677.61	0.579	-1
P 1	22080.82	22080.90	0.072	8	P 1	19690.35	19690.36	0.415	1
P 2	22082.62	22082.62	0.326	0	P 2	19697.22	19697.21	0.521	-1
R 0	22183.78	22183.76	0.064	-2	R 0	19790.76	19790.68	0.063	-8
RMS= 3.8 10 ² cm ⁻¹					RMS= 2.2 10 ² cm ⁻¹				
H ₂ GK → -B 5-6					H ₂ GK → B 5-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 7	18164.72	18164.64	0.059	-8	P 6	17122.34	17122.29	0.083	-5
P 6	18215.47	18215.45	5.059	-2	P 5	17170.94			
P 5	18270.21	18270.20	0.787	-1	P 4	17221.25	17221.18	1.731	-7
P 4	18325.68	18325.65	0.974	-3	P 3	17269.50			
P 3	18378.19	18378.17	1.705	-2	R 1	17413.37	17413.35	1.164	-2
R 1	18527.67	18527.72	0.121	5	R 2	17421.58	17421.60	1.857	2
R 2	18533.58	18533.58	0.708	0	R 3	17426.50	17426.44	0.083	-6
R 3	18535.19	18535.14	0.404	-5	P 1	17429.72	17429.70	0.351	-2
R 4	18535.93	18535.89	0.680	-4	R 4	17431.51	17431.55	1.159	4
R 5	18538.26	18538.30	0.236	4	R 5	17439.00	17439.02	0.481	2
P 1	18544.02	18544.03	0.035	1	P 2	17441.18			
P 2	18553.18				R 0	17527.78			
R 0	18643.26	18643.24	0.523	-2	RMS= 4.2 10 ² cm ⁻¹				
RMS= 2.2 10 ² cm ⁻¹									
H ₂ GK → B 5-8					H ₂ GK → B 5-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	16099.10	16099.09	0.255	-1	P 4	14084.96			
P 4	16145.99				P 3	14125.65			
P 3	16190.87				R 1	14257.05			
R 1	16330.33				R 2	14270.41	14270.39	1.752	-2
R 2	16340.30	16340.29	0.656	-1	P 1	14273.40			
P 1	16346.68				R 3	14282.65	14282.73	0.040	8
R 3	16347.87				P 2	14290.01			
R 4	16356.24	16356.19	0.180	-5	R 4	14295.22	14295.17	0.233	-5
P 2	16359.90	16359.88	0.692	-2	R 0	14368.86			
R 5	16367.16				RMS= 2.6 10 ² cm ⁻¹				
R 0	16443.87								
RMS= 4.4 10 ² cm ⁻¹									

H₂ G → B 5-11					H₂ GK → B 5-12				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 5	13075.38				P 4	12168.40			
P 4	13107.65	13107.71	1.461	6	P 3	12171.88			
P 3	13141.14				R 1	12303.75	12303.75	3.507	0
R 1	13266.17				R 2	12319.06	12319.00	3.256	-6
R 2	13281.97	13282.00	2.472	3	P 1	12320.10	12320.14	3.270	4
P 1	13282.52				R 3	12328.88	12328.90	1.181	2
R 3	13298.14	13298.09	3.133	-5	P 2	12338.66	12338.69	3.235	3
P 2	13301.57	13301.54	3.235	-3	R 4	12378.65	12378.62	1.352	-3
R 4	13317.91	13317.88	3.354	-3	R 0	12414.27			
R 5	13343.43	13343.37	1.978	-6	RMS = 3.5 10⁻² cm⁻¹				
R 0	13376.76								
RMS = 4.2 10⁻² cm⁻¹									
H₂ GK → B 5-13					H₂ GK → B 6-4				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 5	11202.91	11202.87	3.882	-4	P 6	21591.59	21591.55	0.249	-4
P 4	11227.58	11227.58	1.313	0	P 5	21598.35	21598.35	2.626	0
P 3	11254.82	11254.83	0.633	1	P 4	21647.72	21647.72	0.341	0
R 1	11371.87				P 3	21699.62	21699.62	0.231	0
P 1	11388.22	11388.19	1.127	-3	P 2	21746.24	21746.24	0.404	0
R 2	11390.87	11390.88	0.804	1	P 1	21785.88	21785.89	0.174	1
P 2	11410.47				R 0	21843.45	21843.47	0.100	2
R 3	11411.82	11411.81	1.047	-1	R 1	21860.86	21860.83	0.142	-3
R 4	11437.83	11437.78	0.747	-5	R 2	21871.81	21871.79	0.095	-2
R 5	11470.97				R 3	21883.72			
R 0	11480.85	11480.94	0.840	9	R 4	21936.23	21936.20	0.470	-3
RMS = 3.6 10⁻² cm⁻¹					RMS = 1.5 10⁻² cm⁻¹				
H₂ GK → B 6-6					H₂ GK → B 6-7				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 5	19305.38				P 5	18206.12			
P 6	19311.59	19311.65	0.285	6	P 6	18218.47	18218.43	1.750	-4
P 4	19343.54	19343.52	0.574	-2	P 4	18239.11			
P 3	19386.27	19386.26	0.431	-1	P 3	18277.58	18277.56	1.037	-2
P 2	19425.87	19425.86	0.518	-1	P 2	18313.86	18313.86	0.955	0
P 1	19460.77	19460.75	0.441	-2	P 1	18346.48	18346.49	1.312	1
R 0	19515.94	19515.94	0.514	0	R 0	18400.47	18400.48	5.689	1
R 1	19535.75	19535.74	0.401	-1	R 1	18421.45	18421.51	0.755	6
R 2	19551.44	19551.43	0.523	-2	R 2	18439.44	18439.45	0.159	1
R 3	19570.37	19570.28	0.149	-9	R 3	18461.68			
R 4	19632.06	19632.05	0.417	-1	R 4	18527.63	18527.72	0.121	9
RMS = 2.6 10⁻² cm⁻¹					RMS = 2.9 10⁻² cm⁻¹				

H ₂ GK → B 6-8					H ₂ GK → B 6-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	17134.28				P 3	16152.86	16152.94	0.178	8
P 4	17163.85	17163.92	0.536	7	P 2	16183.19	16183.22	1.154	3
P 3	17198.95				P 1	16211.78	16211.87	0.201	9
P 2	17232.59	17232.57	0.304	-2	R 0	16263.74			
P 1	17263.44	17263.40	0.365	-4	R 1	16286.75			
R 0	17316.55	17316.56	0.672	1	R 2	16308.77	16308.77	0.194	0
R 1	17338.41				R 3	16336.96			
R 2	17358.16	17358.13	1.867	-3	RMS= 4.8 10² cm⁻¹				
R 3	17383.05	17383.03	0.567	-2					
R 4	17452.37								
RMS= 3.6 10² cm⁻¹									
H ₂ GK → B 6-12					H ₂ GK → B 6-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	13167.88	13167.86	0.913	-2	P 5	12238.09			
P 3	13179.97				P 4	12245.44			
P 4	13186.26	13186.26	0.900	0	P 3	12262.90	12262.98	1.207	8
P 2	13211.34	13211.37	0.453	3	P 2	12283.15	12283.19	2.097	4
P 1	13236.86				P 1	12304.98	12304.98	1.021	0
R 0	13286.95				R 0	12353.54			
R 1	13311.83				R 1	12379.95			
R 2	13336.92				R 2	12408.73	12408.75	3.065	2
R 3	13364.06	13364.05	0.884	-1	R 3	12446.99			
R 4	13474.78	13474.76	0.519	-2	R 4	12533.96			
RMS= 2.0 10² cm⁻¹					RMS= 3.9 10² cm⁻¹				
H ₂ H-B 0-1					H ₂ H-B 0-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	21384.54	21384.54	0.357	0	P 2	20107.96	20107.94	0.388	-2
P 3	21392.45	21392.46	0.152	1	P 1	20119.00			
P 1	21398.84	21398.85	0.238	1	P 3	20120.65	20120.62	0.369	-3
P 4	21417.38	21417.39	0.443	1	P 4	20151.81	20151.80	0.378	-1
P 5	21484.49	21484.53	0.532	4	R 0	20213.44	20213.42	0.297	-2
R 0	21494.92	21494.94	0.337	2	P 5	20226.45			
R 1	21575.34	21575.34	0.190	0	R 1	20295.51	20295.48	0.275	-3
P 6	21585.46	21585.40	0.505	-6	P 6	20336.11			
R 2	21671.24	21671.25	0.331	1	R 2	20394.65	20394.61	0.432	-4
R 3	21807.17	21807.17	0.164	0	R 3	20535.37			
R 4	21974.31	21974.23	0.166	-8	R 4	20708.73			
RMS= 3.2 10² cm⁻¹					RMS= 2.6 10² cm⁻¹				

H ₂ H-B 0-3					H ₂ H-B 0-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	18865.58				P 2	17656.51			
P 1	18873.75	18873.81	0.214	6	P 1	17662.05			
P 3	18882.52				P 3	17677.32			
P 4	18919.23				P 4	17719.10	17719.10	0.868	0
R 0	18966.73				R 0	17753.72	17753.72	0.265	0
P 5	19000.61				P 5	17806.67	17806.69	0.677	2
R 1	19050.25				R 1	17838.56	17838.47	0.121	-9
P 6	19118.11	19118.14	0.474	3	P 6	17931.37	17931.39	0.683	2
R 2	19152.27	19152.25	0.357	-2	R 2	17943.20	17943.17	0.768	-3
R 3	19297.24				R 3	18092.05			
R 4	19476.15				R 4	18276.02	18276.01	0.837	-1
RMS= 43 10 ² cm ⁻¹					RMS= 22 10 ² cm ⁻¹				
H ₂ H-B 0-5					H ₂ H-B 0-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	16480.17				P 2	15336.14			
P 1	16483.28				P 1	15336.94			
P 3	16504.59				P 3	15363.97			
P 4	16551.09				P 4	15414.93			
R 0	16573.72	16573.67	3.601	-5	R 0	15426.21			
P 5	16644.43				R 1	15513.45			
R 1	16659.79				P 5	15513.71	15513.78	0.019	7
R 2	16766.87				R 2	15622.83			
P 6	16775.87	16775.80	0.166	-7	P 6	15651.38	15651.40	0.290	2
R 3	16919.32				R 3	15778.69	15778.70	3.247	1
R 4	17108.01	17107.94	0.174	-7	R 4	15971.85	15971.93	1.836	8
RMS= 46 10 ² cm ⁻¹					RMS= 47 10 ² cm ⁻¹				
H ₂ H-B 0-7					H ₂ H-B 0-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 1	14222.65				P 1	13139.60			
P 2	14224.13	14224.20	1.787	7	P 2	13142.86			
R 0	14310.74				R 0	13226.82	13226.88	0.933	6
R 1	14399.15	14399.11	0.040	-4	R 1	13316.11	13316.10	3.133	-1
R 2	14510.83				R 2	13429.55	13429.48	0.872	-7
RMS= 68 10 ² cm ⁻¹					RMS= 38 10 ² cm ⁻¹				
H ₂ H-B 1-3					H ₂ H-B 1-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 3	21142.27				P 2	19936.69	19936.70	0.620	1
P 2	21145.76	21145.74	0.151	-2	P 3	19937.07			
P 4	21160.73	21160.64	1.635	-9	P 1	19956.02	19956.00	0.415	-2
P 1	21167.71				P 4	19960.61	19960.68	0.130	7
R 0	21246.91	21246.90	0.018	-1	R 0	20033.90	20033.86	0.819	-4
R 1	21310.00	21310.07	0.123	7	R 1	20098.31	20098.27	0.239	-4
R 2	21393.78				R 2	20184.71	20184.69	0.273	-2
RMS= 84 10 ² cm ⁻¹					RMS= 32 10 ² cm ⁻¹				

H ₂ H-B 1-6					H ₂ H-B 1-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	17616.32	17616.32	1.534	0	P 2	14373.64			
P 3	17623.72				P 1	14381.92	14381.90	0.936	-2
P 1	17630.91	17630.88	1.508	-3	P 3	14390.31			
P 4	17656.43				P 4	14435.08			
R 0	17706.39	17706.39	0.646	0	R 0	14454.19	14454.26	1.040	7
R 1	17773.20	17773.15	0.578	-5	R 1	14524.20	14524.21	0.434	1
R 2	17864.34	17864.33	0.422	-1	R 2	14621.67	14621.62	0.080	-5
RMS= 24 10 ² cm ⁻¹					RMS= 15 10 ² cm ⁻¹				
H ₂ H-B 1-12					H ₂ H-B 1-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	11401.79	11401.81	1.149	2	P 2	10473.60			
P 1	11406.99	11406.94	2.471	-5	P 1	10475.12	10475.21	0.124	9
P 3	11417.41				P 3	10500.35			
R 0	11477.40				R 0	10543.99	10543.99	3.389	0
P 4	11499.16	11499.23	0.807	7	P 4	10558.33			
R 1	11549.28	11549.20	0.305	-8	R 1	10617.40			
R 2	11649.81				R 2	10721.63	10721.58	1.011	-5
RMS= 54 10 ² cm ⁻¹					RMS= 29 10 ² cm ⁻¹				
H ₂ H-B 2-4					H ₂ H-B 2-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	21978.29	21978.26	0.127	-3	P 2	19657.92			
P 3	21998.76	21998.84	0.221	8	P 1	19676.46	19676.50	0.434	4
P 1	22001.57				P 3	19685.41			
P 4	22005.90	22005.90	0.128	0	P 4	19701.72			
P 5	22017.13	22017.15	1.588	2	P 5	19724.16			
P 6	22070.53	22070.45	1.226	-8	R 0	19748.00	19747.99	0.328	-1
R 0	22075.50				P 6	19790.54			
R 1	22160.00	22160.00	3.177	0	R 1	19834.89			
R 2	22230.00				R 2	19909.63			
R 3	22302.50				R 3	19989.14	19989.08	0.219	-6
R 4	22415.18	22415.24	1.050	6	R 4	20111.00	20110.98	0.330	-2
RMS= 44 10 ² cm ⁻¹					RMS= 37 10 ² cm ⁻¹				
H ₂ H-B 2-7					H ₂ H-B 2-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	18545.92	18545.89	0.571	-3	P 2	17464.64	17464.62	1.212	-2
P 1	18562.16	18562.07	0.258	-9	P 1	17479.12	17479.13	0.960	1
P 3	18576.72	18576.76	3.049	4	P 3	17498.09			
P 4	18597.30	18597.27	3.304	-3	P 4	17522.03	17522.04	0.897	1
P 5	18624.90	18624.82	0.105	-8	R 0	17548.61	17548.59	0.891	-2
R 0	18632.52				P 5	17553.06			
P 6	18697.42	18697.40	0.310	-2	R 1	17637.55			
R 1	18720.59				R 2	17716.35	17716.30	1.075	-5
R 2	18797.62	18797.60	2.112	-2	R 3	17801.82			
R 3	18880.45	18880.45	0.358	0	R 4	17931.31	17931.39	0.683	8
R 4	19006.58	19006.54	0.276	-4	RMS= 34 10 ² cm ⁻¹				
RMS= 36 10 ² cm ⁻¹									

H ₂ H-B 2-11					H ₂ H-B 2-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	14406.31	14406.37	0.439	6	P 2	13443.39			
P 1	14414.96				P 1	13452.54	13452.47	1.200	-7
P 3	14448.36				P 3	13479.10	13479.12	0.387	2
R 0	14481.50	14481.59	2.029	9	R 0	13519.01			
P 4	14483.70				P 4	13544.44	13544.47	1.005	3
P 5	14529.33	14529.35	0.475	2	R 1	13610.97			
R 1	14573.39				R 2	13695.10			
R 2	14658.02	14657.97	0.988	-5	R 3	13782.84			
R 3	14752.10				R 4	13953.73			
R 4	14892.98				RMS= 52 10 ² cm ⁻¹				
RMS= 69 10 ² cm ⁻¹									
H ₂ I ⁺ → B 0-0 +					H ₂ I ⁺ → B 0-1 +				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	21815.60	21815.60	0.491	0	P 2	20503.04	20503.03	0.443	-1
P 3	21847.59	21847.59	0.487	0	P 3	20540.64	20540.66	0.203	2
P 4	21884.66	21884.66	0.504	0	P 4	20584.98	20584.99	0.125	1
P 5	21930.33	21930.32	0.461	-1	R 0	20613.41	20613.47	0.083	6
R 0	21931.74	21931.75	0.452	1	P 5	20639.39			
P 6	21972.34	21972.35	0.420	1	P 6	20691.41			
R 1	22039.93				R 1	20723.54			
P 7	22045.25				P 7	20775.39			
R 2	22151.39				R 2	20838.83			
P 8	22172.91				P 8	20914.94			
R 3	22269.01				R 3	20962.07			
R 4	22379.94				R 4	21080.26			
R 5	22518.27				R 5	21227.33			
R 6	22707.45				R 6	21426.53	21426.57	0.164	4
RMS= 0.8 10 ² cm ⁻¹					RMS= 2.7 10 ² cm ⁻¹				
H ₂ I ⁺ → B 0-2					H ₂ I ⁺ → B 0-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	19226.45	19226.44	0.643	-1	P 2	17984.07	17984.06	11.266	-1
P 3	19268.84	19268.82	0.491	-2	P 3	18030.72	18030.71	0.979	-1
P 4	19319.41	19319.40	0.526	-1	R 0	18085.23	18085.21	0.188	-2
R 0	19331.94	19331.92	0.518	-2	P 4	18086.82	18086.81	0.924	-1
P 5	19381.35	19381.34	0.446	-1	P 5	18155.51			
P 6	19442.07	19442.07	0.366	0	R 1	18198.45	18198.42	3.630	-3
R 1	19443.71	19443.69	0.248	-2	P 6	18224.06	18224.06	2.187	0
P 7	19535.75	19535.74	0.401	-1	R 2	18319.87			
R 2	19562.25	19562.24	0.268	-1	P 7	18326.53			
P 8	19685.85				R 3	18452.14			
R 3	19690.27	19690.34	0.137	7	P 8	18486.27	18486.31	0.098	4
R 4	19814.69	19814.68	0.203	-1	R 4	18582.10	18582.11	2.135	1
R 5	19969.29				R 5	18743.45			
R 6	20177.18				R 6	18959.17	18959.15	0.422	-2
RMS= 1.8 10 ² cm ⁻¹					RMS= 1.5 10 ² cm ⁻¹				

H₂ I⁺ → B 0-4					H₂ I⁺ → B 0-5				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 2	16775.00	16775.04	0.166	4	P 2	15598.67			
P 3	16825.52	16825.54	0.212	2	P 3	15652.79			
R 0	16872.21				R 0	15692.21			
P 4	16886.70	16886.69	0.785	-1	P 4	15718.69			
P 5	16961.57	16961.62	0.633	5	P 5	15799.33	15799.29	6.505	-4
R 1	16986.75				R 1	15807.98	15807.98	9.207	0
P 6	17037.33				P 6	15881.82	15881.81	4.627	-1
R 2	17110.80				R 2	15934.46	15934.48	4.502	2
P 7	17147.93				R 3	16074.22	16074.20	1.023	-2
R 3	17246.95	17246.95	0.221	0	R 4	16213.97			
R 4	17381.98				R 5	16387.27			
R 5	17549.51				R 6	16616.94			
RMS= 3.2 10²cm⁻¹					RMS= 2.3 10²cm⁻¹				
H₂ I⁺ → B 0-8					H₂ I⁺ → B 0-9				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 2	12261.35	12261.31	2.127	-4	P 2	11211.96			
P 3	12324.85	12324.81	3.235	-4	P 3	11278.76	11278.75	0.590	-1
R 0	12345.32	12345.36	3.379	4	R 0	11292.51	11292.52	0.665	1
P 4	12402.84	12402.79	0.579	-5	P 4	11361.17			
R 1	12464.31				R 1	11412.65			
P 5	12497.50				P 5	11461.92	11461.98	0.030	6
R 2	12597.15				R 2	11547.76	11547.84	1.335	8
R 3	12746.27				R 3	11700.18			
R 4	12898.11				R 4	11856.45	11856.47	7.350	2
R 5	13085.44	13085.43	3.133	-1	R 5	12049.86			
RMS= 3.6 10²cm⁻¹					RMS= 3.7 10²cm⁻¹				
H₂ I⁺ → B 0-12					H₂ I⁺ → B 1-2				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 2	7311.92	7311.98	1.796	6	P 2	21315.16	21315.18	0.485	2
R 0	7382.30				P 3	21340.30	21340.31	0.473	1
P 3	7388.80	7388.83	7.121	3	P 4	21350.84	21350.86	0.478	2
P 4	7484.43				R 0	21420.65	21420.70	1.042	5
R 1	7505.85	7505.81	0.210	-4	P 5	21463.05	21463.05	0.440	0
P 5	7601.31				P 6	21480.58	21480.58	0.371	0
R 2	7647.72				R 1	21515.17	21515.17	0.187	0
R 3	7810.22				R 2	21593.68	21593.67	0.287	-1
R 4	7979.70	7979.71	2.038	1	R 3	21771.96			
R 5	8189.25				R 4	21853.19			
RMS= 3.7 10²cm⁻¹					RMS= 2.8 10²cm⁻¹				

$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 1-3$					$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 1-4$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	20072.78	20072.77	0.505	-1	P 2	18863.71	18863.70	0.504	-1
P 3	20102.18	20102.16	0.797	-2	P 3	18896.98	18896.97	0.412	-1
P 4	20118.26	20118.25	0.492	-1	P 4	18918.14	18918.20	0.099	6
R 0	20173.94	20173.91	0.429	-3	R 0	18960.92	18960.91	0.456	-1
P 5	20237.21	20237.22	0.347	1	P 5	19043.27	19043.30	0.415	3
P 6	20262.57	20262.58	0.394	1	R 1	19058.22	19058.22	0.432	0
R 1	20269.91	20269.88	0.953	-3	P 6	19075.84	19075.86	0.343	2
R 2	20351.31	20351.31	0.188	0	R 2	19142.23	19142.23	0.552	0
R 3	20533.84				R 3	19328.64	19328.64	0.331	0
R 4	20620.61				R 4	19420.49	19420.50	0.357	1
RMS= 2.1 10^2cm^{-1}					RMS= 1.7 10^2cm^{-1}				
$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 1-5$					$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 1-7$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	17687.37	17687.36	0.940	-1	P 2	15431.34			
P 3	17724.25	17724.24	0.911	-1	P 3	15474.94			
P 4	17750.13	17750.11	1.099	-2	P 4	15509.53			
R 0	17780.92	17780.89	0.505	-3	R 0	15517.94			
R 1	17879.44	17879.51	0.032	7	R 1	15618.81			
P 5	17881.03	17881.05	0.778	2	P 5	15651.04	15651.00	0.066	-4
P 6	17920.33	17920.32	0.786	-1	R 2	15709.86			
R 2	17965.90				R 3	15906.60	15906.61	4.705	1
R 3	18155.91	18155.82	0.590	-9	R 4	16011.89	16011.92	1.324	3
R 4	18252.48	18252.43	0.856	-5	RMS= 1.4 10^2cm^{-1}				
RMS= 3.7 10^2cm^{-1}									
$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 1-9$					$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 1-10$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	13300.67	13300.65	3.294	-2	P 2	12280.16	12280.19	2.442	3
P 3	13350.22				P 3	12331.09	12331.04	3.528	-5
R 0	13381.22				R 0	12359.01	12359.03	2.610	2
P 4	13392.60				P 4	12373.24	12373.25	1.070	1
R 1	13484.11	13484.19	0.884	8	R 1	12462.49	12462.43	1.273	-7
P 5	13543.62	13543.57	3.133	-5	R 2	12558.69			
R 2	13579.19				R 3	12762.75			
R 3	13781.88				R 4	12875.60	12875.61	1.562	1
R 4	13894.95	13894.93	1.383	-2	RMS= 3.4 10^2cm^{-1}				
RMS= 3.9 10^2cm^{-1}									
$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 1-12$					$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 1-13$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	10328.81				P 2	9400.63			
P 3	10377.32	10377.32	0.603	0	P 3	9460.26			
R 0	10404.43	10404.38	1.580	-5	R 0	9471.01			
P 4	10456.68	10456.59	0.960	-9	P 4	9515.86	9515.86	0.861	0
R 1	10509.19	10509.27	0.884	8	R 1	9577.31			
R 2	10607.34	10607.34	1.973	0	R 2	9679.15	9679.14	3.359	-1
P 5	10612.80	10612.83	0.012	3	R 3	9891.92	9891.89	5.110	-3
R 3	10808.98				R 4	10018.21			
R 4	10959.03	10959.04	3.270	1	RMS= 3.4 10^2cm^{-1}				
RMS= 3.9 10^2cm^{-1}									

$\text{H}_2 \text{ I}^+ \rightarrow \text{B} \quad 2-3$					$\text{H}_2 \text{ I}^+ \rightarrow \text{B} \quad 2-5$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	21952.45	21952.46	0.292	1	P 2	19567.05			
R 0	22053.61	22053.66	0.388	5	R 0	19660.59	19660.58	1.571	-1
P 3	22097.56				P 3	19719.64	19719.65	0.583	1
P 4	22110.79	22110.81	0.404	2	P 4	19742.66	19742.66	1.036	0
P 6	22141.26	22141.25	0.302	-1	P 5	19797.50			
P 5	22153.68	22153.67	0.076	-1	P 6	19799.02	19799.01	0.443	-1
R 1	22265.29	22265.26	0.056	-3	R 1	19874.83			
R 2	22343.84	22343.78	0.260	-6	R 2	19958.43			
R 3	22450.31				R 3	20072.38			
R 4	22499.30				R 4	20131.17			
RMS= $3.6 \times 10^2 \text{cm}^{-1}$					RMS= $0.9 \times 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ I}^+ \rightarrow \text{B} \quad 2-6$					$\text{H}_2 \text{ I}^+ \rightarrow \text{B} \quad 2-7$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	18423.01	18423.00	1.462	-1	P 2	17311.01	17311.07	0.919	6
R 0	18513.09	18513.06	0.661	-3	R 0	17397.61	17397.58	1.128	-3
P 3	18579.01	18578.95	3.868	-6	P 3	17470.32	17470.31	0.771	-1
P 4	18606.49	18606.44	1.517	-5	P 4	17502.07	17502.05	1.578	-2
P 5	18666.78				P 5	17567.51			
P 6	18674.53	18674.53	0.282	0	P 6	17581.41	17581.40	1.075	-1
R 1	18728.49	18728.47	0.534	-2	R 1	17614.19			
R 2	18814.40	18814.39	0.404	-1	R 2	17702.39	17702.34	0.230	-5
R 3	18931.76				R 3	17823.07			
R 4	18995.00	18994.99	0.441	-1	R 4	17890.57			
RMS= $4.8 \times 10^2 \text{cm}^{-1}$					RMS= $3.0 \times 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ I}^+ \rightarrow \text{B} \quad 2-8$					$\text{H}_2 \text{ I}^+ \rightarrow \text{B} \quad 2-10$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	16229.73				P 2	14159.83	14159.84	0.494	1
R 0	16313.70				R 0	14238.68	14238.68	0.553	0
P 3	16391.69				P 3	14326.47			
P 4	16426.80	16426.79	0.235	-1	P 4	14365.78	14365.78	0.534	0
R 1	16531.15				R 1	14457.88			
R 2	16621.12				R 2	14551.22			
R 3	16744.44	16744.52	0.109	8	R 3	14679.22			
R 4	16815.31	16815.32	0.114	1	R 4	14754.28	14754.19	0.674	-9
RMS= $3.8 \times 10^2 \text{cm}^{-1}$					RMS= $4.8 \times 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ I}^+ \rightarrow \text{B} \quad 2-11$					$\text{H}_2 \text{ I}^+ \rightarrow \text{B} \quad 2-12$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	13171.40	13171.40	0.691	0	P 2	12208.48	12208.49	1.015	1
R 0	13246.59				R 0	12284.10	12284.10	1.052	0
P 3	13341.97	13342.03	1.221	6	P 3	12372.71	12372.70	0.886	-1
P 4	13388.47				P 4	12449.21	12449.23	1.031	2
R 1	13466.99	13467.02	3.059	3	R 1	12504.57			
P 5	13471.95				P 5	12529.28	12529.28	1.044	0
R 2	13562.79				R 2	12599.87			
R 3	13694.72	13694.75	1.512	3	R 3	12725.46			
R 4	13776.97	13776.97	0.234	0	R 4	12837.72	12837.73	0.944	1
RMS= $3.8 \times 10^2 \text{cm}^{-1}$					RMS= $0.9 \times 10^2 \text{cm}^{-1}$				

$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 2\text{--}13$					$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 3\text{--}5$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	11280.30	11280.27	4.207	−3	P 5	21353.24	21353.17	2.258	−7
R 0	11350.68				P 4	21386.92	21386.94	0.515	2
P 3	11455.64	11455.67	1.700	3	P 3	21397.73	21397.72	0.199	−1
P 4	11508.39				P 2	21403.56	21403.56	0.147	0
R 1	11572.70				R 0	21497.11			
P 5	11599.48				R 1	21552.92			
R 2	11671.68	11671.59	0.453	−9	R 2	21602.70	21602.75	1.534	5
R 3	11808.39	11808.48	0.797	9	R 3	21628.12	21628.05	0.079	−7
R 4	11896.90	11896.91	3.426	1	RMS= 5.5 10² cm^{−1}				
RMS= 3.8 10² cm^{−1}									
$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 3\text{--}6$					$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 3\text{--}7$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 5	20222.51	20222.50	1.058	−1	P 2	19147.53	19147.48	3.283	−5
P 4	20250.76	20250.75	0.385	−1	P 3	19148.41	19148.41	0.478	0
P 3	20257.10				R 0	19234.13			
P 2	20259.53	20259.52	0.366	−1	R 1	19292.28	19292.25	0.168	−3
R 0	20349.61				R 2	19346.66	19346.63	0.606	−3
R 1	20406.58				R 3	19378.81	19378.74	0.358	−7
R 2	20458.66				RMS= 4.7 10² cm^{−1}				
R 3	20487.50	20487.56	0.006	6					
RMS= 14 10² cm^{−1}									
$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 3\text{--}9$					$\text{H}_2 \text{I}^+ \rightarrow \text{B} \quad 3\text{--}13$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 2	17016.86	17016.85	0.923	−1	P 2	13116.82	13116.77	0.368	−5
P 3	17023.70	17023.67	0.224	−3	P 3	13133.73	13133.67	0.132	−6
P 4	17029.40	17029.40	1.597	0	R 0	13187.20			
R 0	17097.40	17097.36	0.075	−4	R 1	13250.79			
R 1	17157.59				R 2	13315.95	13315.99	3.875	4
R 2	17215.99				R 3	13364.13	13364.05	0.585	−8
R 3	17254.09	17254.12	1.187	3	RMS= 4.5 10² cm^{−1}				
RMS= 1.8 10² cm^{−1}									
$\text{H}_2 \text{I} \rightarrow \text{B} \quad 0\text{--}0$					$\text{H}_2 \text{I} \rightarrow \text{B} \quad 0\text{--}1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	21827.97	21827.98	0.497	1	Q 1	20514.14	20514.16	0.186	2
Q 1	21830.53	21830.53	0.502	0	Q 2	20515.41	20515.44	0.331	3
Q 3	21837.39	21837.39	0.467	0	Q 3	20530.45	20530.46	0.199	1
Q 4	21862.72	21862.72	0.466	0	Q 4	20563.04			
Q 5	21905.70	21905.72	0.439	2	Q 5	20614.76	20614.76	0.083	0
Q 6	21967.12	21967.12	0.419	0	Q 6	20686.20	20686.17	0.048	−3
Q 7	22047.09	22047.10	0.426	1	Q 7	20777.23			
Q 8	22145.52	22145.54	0.354	2	Q 8	20887.55			
Q 9	22263.24	22263.24	0.462	0	Q 9	21017.76			
Q10	22395.79	22395.80	0.237	1	Q10	21163.19	21163.19	0.173	0
RMS= 1.1 10² cm^{−1}					RMS= 2.0 10² cm^{−1}				

H ₂ $\Gamma \rightarrow B$ 0-2					H ₂ $\Gamma \rightarrow B$ 0-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	19234.31	19234.29	0.499	-2	Q 1	17989.05	17989.03	0.956	-2
Q 2	19238.83	19238.82	0.601	-1	Q 2	17996.45	17996.44	0.901	-1
Q 3	19258.65	19258.64	0.537	-1	Q 3	18020.52	18020.53	2.065	1
Q 4	19297.46	19297.46	0.520	0	Q 4	18064.88	18064.88	1.061	0
Q 5	19356.72	19356.73	0.360	1	Q 5	18130.88	18130.86	0.755	-2
Q 6	19436.86	19436.84	0.571	-2	Q 6	18218.85	18218.87	2.070	2
Q 7	19537.59	19537.58	0.298	-1	Q 7	18328.37	18328.39	0.784	2
Q 8	19658.46	19658.42	0.441	-4	Q 8	18458.88	18458.87	0.379	-1
Q 9	19800.20				Q 9	18610.64			
Q10	19957.07	19957.06	0.262	-1	RMS= 1.4 10 ⁻² cm ⁻¹				
RMS= 1.6 10 ⁻² cm ⁻¹									
H ₂ $\Gamma \rightarrow B$ 0-4					H ₂ $\Gamma \rightarrow B$ 0-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	16777.35				Q 1	15598.58			
Q 2	16787.38	16787.39	0.924	1	Q 2	15611.04			
Q 3	16815.33	16815.32	0.114	-1	Q 3	15642.60			
Q 4	16864.76	16864.77	0.189	1	Q 4	15696.75			
Q 5	16936.94	16936.91	0.089	-3	Q 5	15774.70	15774.70	3.200	0
Q 6	17032.12	17032.13	0.935	1	Q 6	15876.61	15876.62	4.719	1
Q 7	17149.77	17149.83	0.826	6	RMS= 1.0 10 ⁻² cm ⁻¹				
RMS= 3.4 10 ⁻² cm ⁻¹									
H ₂ $\Gamma \rightarrow B$ 0-6					H ₂ $\Gamma \rightarrow B$ 0-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	14452.24				Q 1	12254.91	12254.87	2.317	-4
Q 2	14467.01	14467.06	0.806	5	Q 2	12273.73			
Q 3	14501.97				Q 3	12314.65	12314.65	3.796	0
Q 4	14560.58	14560.62	0.338	4	Q 4	12380.89			
RMS= 4.4 10 ⁻² cm ⁻¹					Q 5	12472.87	12472.82	3.235	-5
					RMS= 3.7 10 ⁻² cm ⁻¹				
H ₂ $\Gamma \rightarrow B$ 1-1					H ₂ $\Gamma \rightarrow B$ 1-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	22613.37				Q 1	21333.53	21333.53	0.451	0
Q 2	22620.68	22620.65	0.083	-3	Q 2	21344.09	21344.10	0.504	1
Q 3	22637.47	22637.40	0.068	-7	Q 3	21365.67	21365.68	0.516	1
Q 4	22666.87	22666.90	0.148	3	Q 4	21401.29	21401.30	0.507	1
RMS= 4.1 10 ⁻² cm ⁻¹					Q 5	21452.70	21452.74	0.384	4
					Q 6	21520.88	21520.89	0.368	1
					RMS= 1.7 10 ⁻² cm ⁻¹				

H ₂ $\Gamma \rightarrow B$ 1-3					H ₂ $\Gamma \rightarrow B$ 1-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	20088.28	20088.28	0.412	0	Q 1	18876.58	18876.57	0.491	-1
Q 2	20101.71	20101.70	0.585	-1	Q 2	18892.64	18892.63	0.583	-1
Q 3	20127.55	20127.61	0.250	6	Q 3	18922.35	18922.35	0.667	0
Q 4	20168.71	20168.70	0.382	-1	Q 4	18968.59	18968.58	0.587	-1
Q 5	20226.86	20226.85	0.259	-1	Q 5	19032.92	19032.93	1.623	1
Q 6	20302.87	20302.84	0.283	-3	Q 6	19116.14	19116.13	0.532	-1
RMS= 2.5 10 ⁻² cm ⁻¹					RMS= 0.9 10 ⁻² cm ⁻¹				
H ₂ $\Gamma \rightarrow B$ 1-5					H ₂ $\Gamma \rightarrow B$ 1-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	17697.81	17697.81	0.859	0	Q 1	16551.47	16551.39	0.079	-8
Q 2	17716.31	17716.30	1.075	-1	Q 2	16572.27	16572.26	11.696	-1
Q 3	17749.62	17749.62	1.262	0	Q 3	16609.00	16608.96	0.044	-4
Q 4	17800.58	17800.56	0.863	-2	Q 4	16664.41	16664.41	0.568	0
Q 5	17870.68	17870.72	0.962	4	Q 5	16739.96	16740.02	0.331	6
Q 6	17960.63	17960.64	0.568	1	Q 6	16836.15	16836.11	0.158	-4
RMS= 1.7 10 ⁻² cm ⁻¹					RMS= 2.0 10 ⁻² cm ⁻¹				
H ₂ $\Gamma \rightarrow B$ 1-9					H ₂ $\Gamma \rightarrow B$ 1-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	13302.48	13302.54	3.189	6	Q 1	12280.86	12280.87	3.111	1
Q 2	13329.60	13329.59	3.189	-1	Q 2	12309.10	12309.09	3.294	-1
RMS= 4.0 10 ⁻² cm ⁻¹					Q 3	12356.46	12356.47	3.354	1
					RMS= 1.2 10 ⁻² cm ⁻¹				
H ₂ $\Gamma \rightarrow B$ 1-12					H ₂ $\Gamma \rightarrow B$ 1-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	10327.56				Q 1	9395.68			
Q 2	10357.75	10357.75	3.318	0	Q 2	9429.56	9429.51	0.645	-5
Q 3	10402.69	10402.74	3.159	5	Q 3	9485.63			
Q 4	10507.13	10507.15	2.512	2	Q 4	9566.31	9566.31	1.892	0
RMS= 3.0 10 ⁻² cm ⁻¹					RMS= 1.2 10 ⁻² cm ⁻¹				
H ₂ $\Gamma \rightarrow B$ 2-3					H ₂ $\Gamma \rightarrow B$ 2-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	22030.49	22030.52	0.526	3	Q 1	19640.02	19640.00	0.952	-2
Q 2	22046.33	22046.34	0.516	1	Q 2	19660.93	19660.91	1.807	-2
Q 3	22072.41	22072.42	0.457	1	Q 3	19694.48	19694.47	0.972	-1
Q 4	22110.37	22110.37	0.544	0	Q 4	19742.23	19742.20	1.140	-3
Q 5	22161.47	22161.45	3.135	-2	Q 5	19805.29	19805.32	0.933	3
Q 6	22226.46	22226.44	0.532	-2	Q 6	19884.22	19884.22	1.014	0
RMS= 2.1 10 ⁻² cm ⁻¹					RMS= 2.1 10 ⁻² cm ⁻¹				

H₂ $\Gamma \rightarrow B$ 2-6					H₂ $\Gamma \rightarrow B$ 2-7				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 1	18493.68	18493.69	0.609	1	Q 1	17379.39	17379.36	0.772	-3
Q 2	18516.89	18516.88	0.935	-1	Q 2	17404.89	17404.88	1.130	-1
Q 3	18553.86				Q 3	17445.17	17445.16	1.030	-1
Q 4	18606.07	18606.08	1.732	1	Q 4	17501.64	17501.62	1.705	-2
Q 5	18674.57	18674.53	0.282	-4	Q 5	17575.30	17575.30	0.229	0
Q 6	18759.73	18759.71	0.387	-1	Q 6	17666.61	17666.59	0.504	-2
RMS= 1.8 10²cm⁻¹					RMS= 1.9 10²cm⁻¹				
H₂ $\Gamma \rightarrow B$ 2-10					H₂ $\Gamma \rightarrow B$ 2-11				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 1	14223.07	14223.03	0.786	-4	Q 1	13232.19	13232.14	0.727	-5
Q 2	14253.72	14253.68	0.994	-4	Q 2	13265.28	13265.34	0.727	6
Q 3	14301.32				Q 3	13316.81	13316.77	3.893	-4
Q 4	14365.35	14365.36	0.655	1	RMS= 4.6 10²cm⁻¹				
RMS= 3.1 10²cm⁻¹									
H₂ $\Gamma \rightarrow B$ 3-5					H₂ $\Gamma \rightarrow B$ 3-6				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 1	21407.18	21407.20	0.412	2	Q 1	20260.84	20260.87	0.534	3
Q 2	21427.53	21427.54	0.505	1	Q 2	20283.49	20283.54	0.138	5
Q 3	21458.79	21458.79	0.292	0	Q 3	20318.17	20318.18	0.381	1
Q 4	21501.60	21501.62	0.370	2	Q 4	20365.43	20365.42	0.595	-1
Q 5	21556.45	21556.49	0.371	4	Q 5	20425.73	20425.79	0.229	6
RMS= 2.2 10²cm⁻¹					RMS= 2.9 10²cm⁻¹				
H₂ $\Gamma \rightarrow B$ 3-7					H₂ $\Gamma \rightarrow B$ 3-8				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 1	19146.54	19146.50	0.147	-4	Q 1	18063.50	18063.51	2.086	1
Q 2	19171.49	19171.49	0.613	0	Q 2	18090.21	18090.20	0.865	-1
Q 3	19209.48	19209.45	0.279	-3	Q 3	18130.85	18130.86	0.755	1
Q 4	19261.01	19261.00	0.497	-1	Q 4	18185.75	18185.74	0.875	-1
Q 5	19326.47	19326.44	0.290	-3	RMS= 0.7 10²cm⁻¹				
RMS= 2.1 10²cm⁻¹									
H₂ $\Gamma \rightarrow B$ 3-9					H₂ $\Gamma \rightarrow B$ 3-10				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 1	17011.85				Q 1	15990.23			
Q 2	17040.82	17040.76	0.608	-6	Q 2	16020.32			
Q 3	17084.76	17084.71	0.094	-5	Q 3	16065.63	16065.63	0.222	0
Q 4	17144.08	17144.09	0.477	1	Q 4	16124.72	16124.69	1.039	-3
RMS= 4.6 10²cm⁻¹					RMS= 2.7 10²cm⁻¹				

H₂ $\Gamma \rightarrow B$ 3-12					H₂ $\Gamma \rightarrow B$ 3-13				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 1	14036.93				Q 1	13105.05	13105.05	3.620	0
Q 2	14068.97	14069.04	0.794	7	Q 2	13140.78			
Q 3	14111.86	14111.93	0.183	7	Q 3	13194.80			
RMS= 7.1 10²cm⁻¹					Q 4	13267.34	13267.27	0.267	-7
					Q 5	13358.43	13358.48	2.441	5
					RMS= 3.47 10²cm⁻¹				
H₂ J⁺ \rightarrow B 0-0					H₂ J⁺ \rightarrow B 0-1				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 3	22102.07	22102.07	0.433	0	P 3	20795.12			
P 4	22188.21	22188.21	0.450	0	P 4	20888.53			
R 1	22294.41	22294.41	0.139	0	R 1	20978.02			
P 5	22304.77	22304.80	0.289	3	P 5	21013.83	21013.92	0.115	9
P 6	22421.53	22421.52	0.283	-1	P 6	21140.61	21140.60	0.187	-1
R 2	22454.94	22454.96	0.064	2	R 2	21142.38	21142.40	0.114	2
R 3	22643.45	22643.46	0.062	1	R 3	21336.50	21336.42	0.138	-8
R 4	22829.13				R 4	21529.46	21529.49	0.361	3
RMS= 1.6 10²cm⁻¹					RMS= 5.2 10²cm⁻¹				
H₂ J⁺ \rightarrow B 0-2					H₂ J⁺ \rightarrow B 0-3				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 3	19523.33	19523.32	0.414	-1	P 3	18285.20	18285.18	0.272	-2
P 4	19622.95	19622.91	1.908	-4	P 4	18390.37	18390.38	5.001	1
R 1	19698.19				R 1	18452.93			
P 5	19755.79	19755.81	0.311	2	P 5	18529.95			
R 2	19865.80	19865.80	0.391	0	R 2	18623.42	18623.47	0.764	5
P 6	19891.26	19891.33	0.110	7	P 6	18673.26	18673.27	0.272	1
R 3	20064.71				R 3	18826.58			
R 4	20263.88	20263.85	0.513	-3	R 4	19031.30	19031.28	0.869	-2
RMS= 3.7 10²cm⁻¹					RMS= 1.8 10²cm⁻¹				
H₂ J⁺ \rightarrow B 0-4					H₂ J⁺ \rightarrow B 0-5				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 3	17080.00	17080.01	0.173	1	P 3	15907.27	15907.28	4.403	1
P 4	17190.25	17190.16	0.126	-9	P 4	16022.24	16022.32	1.856	8
R 1	17241.24				R 1	16062.46			
P 5	17336.01				R 2	16238.01			
R 2	17414.35	17414.31	0.079	-4	R 3	16448.65			
P 6	17486.53				R 4	16663.17			
R 3	17621.38				RMS= 4.6 10²cm⁻¹				
R 4	17831.17	17831.21	5.917	4					
RMS= 3.51 10²cm⁻¹									

$\text{H}_2 \text{ J}^+ \rightarrow \text{B} \quad 0-7$					$\text{H}_2 \text{ J}^+ \rightarrow \text{B} \quad 0-9$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 3	13657.96				P 3	11533.24	11533.23	3.354	-1
P 4	13781.65	13781.64	1.466	-1	P 4	11664.71			
R 1	13801.83				R 1	11667.13	11667.15	0.354	2
P 5	13943.78				P 5	11836.36	11836.37	20.563	1
R 2	13981.97	13982.00	1.117	3	R 2	11851.30	11851.30	3.758	0
P 6	14113.41	14113.45	0.085	4	R 3	12074.62	12074.54	0.598	-8
R 3	14199.34				R 4	12305.64	12305.64	3.189	0
R 4	14422.57				RMS = $1.7 \cdot 10^2 \text{cm}^{-1}$				
RMS = $1.9 \cdot 10^2 \text{cm}^{-1}$									
$\text{H}_2 \text{ J}^+ \rightarrow \text{B} \quad 1-4$					$\text{H}_2 \text{ J}^+ \rightarrow \text{B} \quad 1-5$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 3	19264.66				P 3	18091.93	18091.87	0.372	-6
P 4	19339.12	19339.08	0.174	-4	P 4	18171.11	18171.07	2.005	-4
R 1	19425.89	19425.86	0.518	-3	R 1	18247.12			
R 2	19563.21	19563.20	0.343	-1	P 5	18260.57			
R 3	19708.19	19708.14	0.537	-5	P 6	18374.98	18374.99	3.832	1
R 4	19875.14				R 2	18386.88	18386.89	2.766	1
RMS = $3.4 \cdot 10^2 \text{cm}^{-1}$					R 3	18535.46			
					R 4	18707.13			
					RMS = $2.2 \cdot 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ J}^+ \rightarrow \text{B} \quad 1-11$					$\text{H}_2 \text{ J}^+ \rightarrow \text{B} \quad 1-12$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 3	11714.26				P 3	10745.00	10745.05	0.714	5
P 4	11816.92				R 1	10876.87			
R 1	11839.28	11839.30	12.886	2	P 4	10877.66	10877.66	0.212	0
P 5	11935.02				P 5	10992.35	10992.39	4.216	4
R 2	11991.23	11991.32	0.578	9	R 2	11028.32	11028.24	1.169	-8
R 3	12157.79	12157.77	1.230	-2	R 3	11188.53			
R 4	12352.94	12352.91	3.235	-3	R 4	11413.68	11413.64	1.033	-4
RMS = $2.3 \cdot 10^2 \text{cm}^{-1}$					RMS = $4.7 \cdot 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ J}^+ \rightarrow \text{B} \quad 2-6$					$\text{H}_2 \text{ J}^+ \rightarrow \text{B} \quad 2-7$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 3	19017.58				P 3	17908.89			
P 4	19071.58	19071.65	0.376	7	P 4	17967.15			
P 5	19158.10				R 1	18052.77			
R 1	19167.06				P 5	18058.83	18058.81	0.167	-2
P 6	19204.89	19204.98	0.335	9	P 6	18111.77			
R 2	19279.48	19279.51	0.313	3	R 2	18167.48			
R 3	19423.08				R 3	18314.39	18314.39	0.914	0
R 4	19525.36	19525.30	0.341	-6	R 4	18420.93	18420.94	2.605	1
RMS = $6.9 \cdot 10^2 \text{cm}^{-1}$					RMS = $0.5 \cdot 10^2 \text{cm}^{-1}$				

H ₂ J ⁺ → B 2-9					H ₂ J ⁺ → B 2-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 3	15784.18	15784.14	3.318	-4	P 3	13780.54			
P 4	15850.22	15850.24	9.722	2	P 4	13853.56	13853.51	0.139	-5
R 1	15918.07	15918.07	4.691	0	R 1	13905.56			
P 5	15951.41	15951.40	4.377	-1	P 5	13963.27			
R 2	16036.81				R 2	14027.87	14027.89	0.504	2
R 3	16189.67				R 3	14186.03			
R 4	16304.00				R 4	14307.34			
RMS= 2.0 10 ² cm ⁻¹					RMS= 2.9 10 ² cm ⁻¹				
H ₂ J ⁺ → B 2-12					H ₂ J ⁻ → B 2-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 3	12811.28	12811.28	0.947	0	P 3	11894.21	11894.23	3.679	2
P 4	12914.30	12914.29	1.006	-1	P 4	11973.48	11973.42	2.474	-6
R 1	12943.15	12943.12	3.035	-3	R 1	12011.27			
P 5	13020.59	13020.60	0.438	1	P 5	12090.80	12090.77	1.029	-3
R 2	13064.96	13064.99	1.091	3	R 2	12136.77			
R 3	13216.78	13216.80	0.959	2	R 3	12299.71	12299.75	3.294	4
R 4	13368.08	13368.10	0.728	2	R 4	12427.26			
RMS= 2.1 10 ² cm ⁻¹					RMS= 4.3 10 ² cm ⁻¹				
H ₂ J ⁻ → B 0-1					H ₂ J ⁻ → B 0-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 2	20893.75				Q 2	19617.17	19617.09	1.835	-8
Q 3	21001.93	21001.90	0.103	-3	Q 3	19730.13	19730.15	0.473	2
Q 4	21132.32	21132.34	0.279	2	Q 4	19866.74	19866.65	0.235	-9
Q 5	21282.20	21282.27	0.102	7	Q 5	20024.16			
Q 6	21449.84	21449.82	0.207	-2	Q 6	20200.49	20200.50	0.100	1
RMS= 3.2 10 ² cm ⁻¹					RMS= 6.9 10 ² cm ⁻¹				
H ₂ J ⁻ → B 0-3					H ₂ J ⁻ → B 0-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 2	18374.79	18374.84	3.334	5	Q 2	14845.35	14845.34	1.627	0
Q 3	18492.00	18492.02	1.776	2	Q 3	14973.46	14973.37	0.035	-9
Q 4	18634.16	18634.10	0.076	-6	RMS= 1.3 10 ² cm ⁻¹				
Q 5	18798.32	18798.28	3.705	-4					
Q 6	18982.49	18982.48	0.810	-1					
RMS= 4.0 10 ² cm ⁻¹									

$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 0\text{-}9$					$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 1\text{-}2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	11602.68	11602.72	0.130	4	Q 2	21809.43	21809.43	0.469	0
Q 3	11740.05	11740.13	1.210	8	Q 3	21901.07	21901.05	0.264	-2
Q 4	11908.50	11908.57	2.732	7	Q 4	22014.90	22014.92	0.225	2
RMS= $7.4 \times 10^2 \text{cm}^{-1}$					Q 5	22147.92	22147.97	0.224	5
					RMS= $2.5 \times 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 1\text{-}3$					$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 1\text{-}4$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	20567.05	20567.09	0.036	4	Q 2	19357.98	19357.96	0.408	-2
Q 3	20662.95	20662.93	0.058	-2	Q 3	19457.75	19457.74	0.377	-1
RMS= $2.8 \times 10^2 \text{cm}^{-1}$					Q 4	19582.19	19582.15	0.064	-4
					Q 5	19728.15	19728.19	0.498	4
					RMS= $3.0 \times 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 1\text{-}5$					$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 1\text{-}7$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	18181.64				Q 2	15925.60	15925.61	8.859	1
Q 3	18285.02				Q 3	16035.71	16035.68	3.827	-3
Q 4	18414.19	18414.14	0.540	-5	RMS= $1.7 \times 10^2 \text{cm}^{-1}$				
Q 5	18565.90	18565.97	0.262	7					
RMS= $5.6 \times 10^2 \text{cm}^{-1}$									
$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 1\text{-}8$					$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 2\text{-}4$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	14844.33	14844.29	0.211	-4	Q 2	21426.98	21426.99	0.216	1
Q 3	14957.08				Q 3	21506.41			
RMS= $4.0 \times 10^2 \text{cm}^{-1}$					Q 4	21607.26	21607.27	0.047	1
					RMS= $0.7 \times 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 2\text{-}5$					$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 2\text{-}9$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	20250.65	20250.71	0.125	6	Q 2	15863.94	15863.95	4.517	1
Q 3	20333.68				Q 3	15959.65	15959.67	1.831	2
Q 4	20439.25	20439.20	0.061	-5	Q 4	16081.72	16081.65	0.307	-7
RMS= $5.5 \times 10^2 \text{cm}^{-1}$					RMS= $1.9 \times 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ J} \rightarrow \text{B} \quad 2\text{-}12$									
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$					
Q 2	12892.09	12892.08	1.184	-1					
Q 3	12986.75	12986.75	1.397	0					
Q 4	13145.80	13145.81	0.967	1					
RMS= $0.5 \times 10^2 \text{cm}^{-1}$									

TRANSITIONS

$GK \rightarrow C$

$H \rightarrow C$

$I \rightarrow C$

$J \rightarrow C$

H₂ GK → C⁺ 0-0					H₂ GK → C⁺ 0-1				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 5	11844.09	11844.11	9.574	2	P 4	9783.33			
R 5	12051.30				P 3	9944.59	9944.56	2.391	-3
P 4	12057.28				R 4	9965.09	9965.11	2.624	2
P 3	12233.79	12233.76	2.085	-3	P 2	10075.32	10075.32	2.199	0
R 4	12239.04	12239.07	0.859	3	R 3	10096.09			
P 2	12374.46	12374.48	0.492	2	P 1	10171.24	10171.23	5.044	-1
R 3	12385.29	12385.29	1.220	0	R 2	10184.97	10184.96	2.680	-1
P 1	12476.75	12476.78	1.126	3	R 1	10236.17			
R 2	12484.11	12484.11	1.048	0	RMS= 1.5 10⁻²cm⁻¹				
R 1	12541.68	12541.67	1.097	-1					
RMS= 2.0 10⁻²cm⁻¹									
H₂ GK → C⁺ 0-2					H₂ GK → C⁺ 1-0				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 5	7441.80	7441.76	0.003	-4	P 5	12004.32	12004.37	0.199	5
P 4	7618.31	7618.31	0.145	0	P 4	12190.42			
R 5	7649.01	7648.97	0.510	-4	P 3	12367.79			
P 3	7797.78				R 5	12386.27	12386.26	0.987	-1
R 4	7800.07				R 4	12467.33	12467.33	1.033	0
P 2	7911.82				P 2	12529.28	12529.28	1.044	0
R 3	7949.28	7949.24	2.190	-4	R 3	12545.53	12545.52	1.050	-1
P 1	8000.15				R 2	12617.25	12617.25	1.066	0
R 2	8021.47				P 1	12660.58	12660.56	0.947	-2
R 1	8065.08	8065.02	4.612	-6	R 1	12675.68	12675.68	1.048	0
RMS= 4.8 10⁻²cm⁻¹					RMS= 1.1 10⁻²cm⁻¹				
H₂ GK → C⁺ 1-1					H₂ GK → C⁺ 1-2				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 6	9559.45	9559.47	1.918	2	P 5	7602.03	7602.10	0.442	7
P 5	9711.30				P 4	7751.45	7751.43	3.860	-2
P 4	9916.47				R 6	7922.20			
R 6	10030.35	10030.35	1.694	0	P 3	7931.78			
P 3	10078.58	10078.64	3.566	6	R 5	7983.98			
R 5	10093.25				R 4	8028.35			
R 4	10193.37	10193.37	3.062	0	P 2	8066.64			
P 2	10230.14				R 3	8109.52	8109.58	2.766	6
R 3	10256.32	10256.34	0.989	2	R 2	8154.61			
R 2	10318.11	10318.11	4.047	0	P 1	8183.97	8184.00	1.715	3
P 1	10355.07	10355.10	5.139	3	R 1	8199.07	8199.12	0.690	5
R 1	10370.17	10370.17	1.238	0	RMS= 4.2 10⁻²cm⁻¹				
RMS= 3.1 10⁻²cm⁻¹									

H ₂ GK → C ⁺ 2-0					H ₂ GK → C ⁺ 2-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	13661.27				P 5	11368.25	11368.23	0.297	-2
P 4	13847.71	13847.71	1.033	0	P 4	11573.76			
P 2	14001.88	14001.82	0.267	-6	P 2	11702.75	11702.75	0.494	0
P 3	14010.61	14010.57	0.473	-4	P 3	11721.41			
R 4	14069.81	14069.80	0.240	-1	R 4	11795.86	11795.87	1.088	1
P 1	14106.14	14106.11	0.061	-3	P 1	11800.62	11800.61	0.981	-1
R 3	14202.47				R 3	11913.27	11913.27	1.066	0
R 2	14274.53				R 2	11975.40	11975.40	1.126	0
R 1	14318.50				R 1	12012.99	12013.00	1.160	1
RMS= 29 10 ² cm ⁻¹					RMS= 10 10 ² cm ⁻¹				
H ₂ GK → C ⁺ 2-2					H ₂ GK → C ⁺ 3-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	9408.74				P 4	14390.94			
P 2	9539.25	9539.25	1.627	0	P 3	14586.39	14586.30	0.352	-9
P 3	9574.60				R 4	14615.91	14615.91	0.468	0
P 1	9629.53				R 3	14720.27	14720.28	1.776	1
R 4	9630.84	9630.84	0.615	0	P 2	14755.04			
R 3	9766.46	9766.43	0.650	-3	R 2	14817.76	14817.78	0.435	2
R 2	9811.90				P 1	14892.52			
R 1	9841.90	9841.90	0.379	0	R 1	14894.28			
RMS= 16 10 ² cm ⁻¹					RMS= 33 10 ² cm ⁻¹				
H ₂ GK → C ⁺ 3-1					H ₂ GK → C ⁺ 3-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	12116.99	12116.99	1.118	0	P 6	9599.88	9599.94	2.273	6
P 3	12297.19	12297.20	3.775	1	P 5	9776.77	9776.75	0.833	-2
R 4	12341.95	12341.95	1.059	0	P 4	9951.97	9951.96	3.331	-1
R 3	12431.06	12431.06	1.000	0	R 6	10026.28	10026.26	3.063	-2
P 2	12455.91	12455.91	2.012	0	R 5	10104.63	10104.65	0.137	2
R 2	12518.63	12518.63	1.100	0	P 3	10150.38	10150.47	0.374	9
P 1	12587.01	12587.02	1.047	1	R 4	10176.94	10176.93	3.180	-1
R 1	12588.77	12588.78	1.074	1	R 3	10284.26	10284.26	1.761	0
RMS= 08 10 ² cm ⁻¹					P 2	10292.41			
					R 2	10355.13	10355.13	8.423	0
					P 1	10415.92			
					R 1	10417.68	10417.66	1.044	-2
					RMS= 24 10 ² cm ⁻¹				

H ₂ GK → C ⁺ 4-0					H ₂ GK → C ⁺ 4-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	15607.36	15607.34	1.085	-2	P 6	13035.67	13035.67	0.959	0
P 3	15747.37				P 5	13156.09	13156.10	1.065	0
P 2	15860.91	15860.89	4.648	-2	P 4	13333.41	13333.42	1.170	1
R 4	15943.55	15943.53	2.345	-2	P 3	13458.17	13458.16	1.176	-1
P 1	15947.77	15947.74	3.780	-3	P 2	13561.78	13561.78	1.452	0
R 3	15990.32				P 1	13642.26	13642.25	1.462	-1
R 2	16034.19				R 4	13669.59			
R 1	16055.27	16055.25	1.502	-2	R 3	13701.11	13701.10	1.152	-1
RMS= 1.1 10 ⁻² cm ⁻¹					R 2	13735.05	13735.06	1.388	1
					R 1	13749.75	13749.76	0.634	1
					RMS= 0.8 10 ⁻² cm ⁻¹				
H ₂ GK → C ⁺ 4-2					H ₂ GK → C ⁺ 4-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	10927.52	10927.47	1.271	-5	P 2	9352.98	9353.00	1.128	2
P 5	11046.82	11046.83	7.113	1	P 1	9439.12	9439.12	3.506	0
P 4	11168.39				R 2	9526.26	9526.25	1.762	-1
P 3	11311.37				R 1	9546.62	9546.67	1.737	5
P 2	11398.28	11398.28	1.190	0	RMS= 2.2 10 ⁻² cm ⁻¹				
P 1	11471.16	11471.20	3.637	4					
R 4	11504.58	11504.57	0.936	-1					
R 3	11554.31	11554.29	0.876	-2					
R 2	11571.55	11571.55	1.216	0					
R 1	11578.66	11578.66	0.872	0					
RMS= 2.3 10 ⁻² cm ⁻¹									
H ₂ GK → C ⁺ 5-0					H ₂ GK → C ⁺ 5-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	16304.13				P 6	13813.92	13813.92	0.246	0
P 4	16511.54	16511.49	0.729	-5	P 5	14011.11			
R 5	16572.19	16572.23	9.329	4	P 4	14237.58			
P 3	16688.34	16688.39	0.646	5	R 5	14279.17			
R 4	16721.79				P 3	14399.13	14399.11	0.040	-2
R 3	16845.34				R 4	14447.84	14447.81	0.658	-3
R 2	16938.36				R 3	14556.13			
P 2	16957.96				R 2	14639.23	14639.23	1.018	0
R 1	16996.23	16996.23	0.846	0	P 2	14658.83	14658.82	1.115	-1
P 1	17012.58				R 1	14690.72			
RMS= 5.0 10 ⁻² cm ⁻¹					P 1	14707.07	14707.09	0.254	2
					RMS= 1.5 10 ⁻² cm ⁻¹				

H₂ GK → C⁺ 5-2					H₂ GK → C⁺ 5-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 6	11705.77	11705.71	1.140	-6	R 2	10430.43	10430.43	2.502	0
P 5	11901.84	11901.82	1.091	-2	P 2	10450.03	10450.03	2.116	0
P 4	12072.57	12072.57	1.113	0	R 1	10487.59	10487.57	1.540	-2
R 5	12169.90	12169.88	1.100	-2	P 1	10503.94			
P 3	12252.33	12252.30	0.948	-3	RMS= 0.6 10⁻²cm⁻¹				
R 4	12282.82	12282.78	1.074	-4					
R 3	12409.33	12409.34	1.370	1					
R 2	12475.73	12475.74	1.066	1					
P 2	12495.33	12495.33	1.074	0					
R 1	12519.62	12519.63	1.085	1					
P 1	12535.98	12535.98	0.991	0					
RMS= 2.4 10⁻²cm⁻¹									
H₂ GK → C⁺ 6-0					H₂ GK → C⁺ 6-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 3	17696.42				P 6	12801.89	12801.82	0.661	-7
P 2	17830.64	17830.61	7.980	-3	P 5	12937.02			
R 3	17880.51	17880.57	0.360	6	P 4	13090.43	13090.42	1.036	-1
P 1	17929.34				P 3	13260.41	13260.41	0.927	0
R 2	17956.22				P 2	13368.01	13368.10	0.536	9
R 1	18004.31	18004.34	0.177	3	R 4	13378.95	13378.90	1.058	-5
RMS= 2.0 10⁻²cm⁻¹					R 3	13444.51	13444.48	0.340	-3
					P 1	13452.73	13452.74	1.448	1
					R 2	13493.59	13493.58	0.983	-1
					R 1	13527.70	13527.70	1.180	0
					RMS= 3.6 10⁻²cm⁻¹				
H₂ GK → C⁺ 6-3					H₂ GK → C⁻ 0-0 -				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 2	11322.72				Q 6	11714.40	11714.47	0.932	7
P 1	11420.69	11420.72	0.274	3	Q 5	11953.41	11953.43	1.004	2
R 2	11448.29	11448.29	1.392	0	Q 4	12152.57	12152.57	1.147	0
R 1	11495.67				Q 3	12306.50	12306.51	1.084	1
RMS= 0.9 10⁻²cm⁻¹					Q 2	12421.38	12421.37	1.094	-1
					Q 1	12499.43	12499.43	1.092	0
					RMS= 2.9 10⁻²cm⁻¹				

H ₂ GK → C ⁻ 0-1 -					H ₂ GK → C ⁻ 0-2 -				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 6	9470.85	9470.84	0.725	-1	Q 6	7359.55	7359.62	2.474	7
Q 5	9691.46				Q 5	7562.47			
Q 4	9875.19	9875.18	0.699	-1	Q 4	7731.15	7731.19	4.546	4
Q 3	10016.69	10016.72	3.255	3	Q 3	7860.50			
Q 2	10122.18	10122.17	1.314	-1	Q 2	7956.80			
Q 1	10193.94	10193.91	3.466	-3	Q 1	8022.43			
RMS= 2.5 10 ² cm ⁻¹					RMS= 5.2 10 ² cm ⁻¹				
H ₂ GK → C ⁻ 0-3 -					H ₂ GK → C ⁻ 1-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 3	5835.31	5835.30	5.459	-1	Q 6	12049.38	12049.36	0.731	-2
Q 2	5922.61	5922.66	0.746	5	Q 5	12181.69	12181.70	1.061	1
Q 1	5982.20				Q 4	12312.81	12312.84	3.608	3
RMS= 2.0 10 ² cm ⁻¹					Q 3	12439.64	12439.64	1.077	0
					Q 2	12555.38	12555.37	1.064	-1
					Q 1	12654.25	12654.26	1.093	1
					RMS= 2.0 10 ² cm ⁻¹				
H ₂ GK → C ⁻ 1-1					H ₂ GK → C ⁻ 1-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 5	9919.74	9919.75	0.891	1	Q 6	7694.53	7694.52	1.764	-1
Q 4	10035.43	10035.43	3.434	0	Q 5	7790.75			
Q 3	10149.84	10149.83	2.582	-1	Q 4	7891.38			
Q 2	10256.17				Q 3	7993.64	7993.70	1.525	6
Q 1	10348.76	10348.79	5.158	3	Q 2	8090.80			
RMS= 1.9 10 ² cm ⁻¹					Q 1	8177.25	8177.24	5.293	-1
					RMS= 2.8 10 ² cm ⁻¹				
H ₂ GK → C ⁻ 2-0					H ₂ GK → C ⁻ 2-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 5	13784.17	13784.19	1.236	2	Q 5	11522.23	11522.24	1.045	1
Q 4	13969.75	13969.69	3.005	-6	Q 4	11692.37	11692.39	1.201	2
Q 3	14096.93				Q 3	11807.12	11807.12	1.351	0
Q 1	14126.86	14126.86	0.205	0	Q 1	11821.36			
Q 2	14198.20				Q 2	11899.00	11899.01	1.107	1
RMS= 5.1 10 ² cm ⁻¹					RMS= 1.2 10 ² cm ⁻¹				
H ₂ GK → C ⁻ 2-2					H ₂ GK → C ⁻ 3-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 4	9548.33	9548.29	3.468	-4	Q 6	14170.02	14169.99	0.033	-3
Q 1	9649.85	9649.84	4.087	-1	Q 5	14330.27	14330.27	0.699	0
Q 3	9650.92	9650.91	4.692	-1	Q 4	14487.55	14487.53	0.970	-2
Q 2	9733.62	9733.59	0.115	-3	Q 3	14640.16	14640.17	1.080	1
RMS= 2.2 10 ² cm ⁻¹					Q 2	14773.98	14773.98	0.540	0
					Q 1	14880.02	14880.01	0.327	-1
					RMS= 1.0 10 ² cm ⁻¹				

$\text{H}_2 \text{ GK} \rightarrow \text{C}^- \quad 3-1$					$\text{H}_2 \text{ GK} \rightarrow \text{C}^- \quad 4-0$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 7	11782.82	11782.82	0.559	0	Q 4	15757.60	15757.59	2.560	-1
Q 6	11926.46	11926.40	0.613	-6	Q 3	15856.58	15856.62	6.234	4
Q 5	12068.32	12068.33	1.135	1	Q 2	15934.97	15935.00	4.472	3
Q 4	12210.17	12210.18	1.344	1	Q 1	15985.89	15985.91	1.491	2
Q 3	12350.35	12350.35	4.132	0	RMS = $3.4 \times 10^{-2} \text{cm}^{-1}$				
Q 2	12474.78	12474.78	1.150	0					
Q 1	12574.53	12574.53	1.065	0					
RMS = $1.7 \times 10^{-2} \text{cm}^{-1}$									
$\text{H}_2 \text{ GK} \rightarrow \text{C}^- \quad 4-1$					$\text{H}_2 \text{ GK} \rightarrow \text{C}^- \quad 4-2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 5	13395.96	13396.01	0.202	5	Q 5	11266.97	11266.96	0.653	-1
Q 4	13480.22	13480.22	1.126	0	Q 4	11336.17	11336.16	0.898	-1
Q 3	13566.78	13566.78	1.225	0	Q 3	11410.58	11410.57	1.801	-1
Q 2	13635.76	13635.76	1.265	0	Q 2	11470.39	11470.39	1.156	0
Q 1	13680.40	13680.40	1.315	0	Q 1	11508.88	11508.88	1.619	0
RMS = $0.9 \times 10^{-2} \text{cm}^{-1}$					RMS = $0.7 \times 10^{-2} \text{cm}^{-1}$				
$\text{H}_2 \text{ GK} \rightarrow \text{C}^- \quad 4-3$					$\text{H}_2 \text{ GK} \rightarrow \text{C}^- \quad 5-1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 3	9385.39	9385.41	5.806	2	Q 6	13991.74	13991.77	2.338	3
Q 2	9436.20	9436.21	0.331	1	Q 5	14174.21			
Q 1	9468.66	9468.66	4.262	0	Q 4	14335.24	14335.22	0.341	-2
RMS = $1.5 \times 10^{-2} \text{cm}^{-1}$					Q 3	14470.95	14470.95	0.692	0
					Q 2	14576.72	14576.73	0.409	1
					Q 1	14777.45			
					RMS = $2.7 \times 10^{-2} \text{cm}^{-1}$				
$\text{H}_2 \text{ GK} \rightarrow \text{C}^- \quad 5-2$					$\text{H}_2 \text{ GK} \rightarrow \text{C}^- \quad 6-2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 6	11880.44	11880.39	3.078	-5	Q 5	13141.34	13141.30	0.969	-4
Q 5	12045.22	12045.19	1.079	-3	Q 4	13226.37	13226.28	0.675	-9
Q 4	12191.19	12191.22	2.279	3	Q 3	13332.61	13332.60	0.990	-1
Q 3	12314.75	12314.75	3.585	0	Q 2	13419.43	13419.43	0.960	0
Q 2	12411.35	12411.36	1.071	1	Q 1	13478.62	13478.62	1.314	0
Q 1	12605.93	12605.93	0.804	0	RMS = $3.8 \times 10^{-2} \text{cm}^{-1}$				
RMS = $3.2 \times 10^{-2} \text{cm}^{-1}$									
$\text{H}_2 \text{ GK} \rightarrow \text{C}^- \quad 6-3$									
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$					
Q 4	11213.15	11213.09	1.034	-6					
Q 3	11307.43								
Q 2	11385.24	11385.24	0.624	0					
Q 1	11438.39	11438.33	1.600	-6					
RMS = $5.4 \times 10^{-2} \text{cm}^{-1}$									

H₂ H → C⁺ 0-0					H₂ H → C⁺ 0-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	13547.63	13547.65	1.257	2	P 6	11249.83	11249.82	0.527	-1
P 4	13600.79	13600.79	1.775	0	P 5	11254.62			
P 3	13674.12	13674.12	1.438	0	P 4	11326.83	11326.81	0.153	-2
P 2	13740.91	13740.91	1.454	0	P 3	11384.91			
P 1	13805.50	13805.50	1.379	0	P 2	11441.78	11441.78	0.241	0
R 1	13982.01	13982.00	1.117	-1	P 1	11499.99			
R 2	14027.61	14027.58	0.843	-3	R 1	11676.50			
R 3	14088.84	14088.85	0.868	1	R 2	11728.47	11728.54	0.688	7
R 4	14157.71				R 3	11799.64	11799.59	0.132	-5
RMS= 1.0 10² cm⁻¹					R 4	11883.75	11883.78	6.901	3
					RMS= 3.4 10² cm⁻¹				
H₂ H → C⁺ 1-1					H₂ H → C⁺ 1-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	13568.34	13568.31	1.008	-3	P 3	11497.86	11497.84	0.689	-2
P 3	13644.66	13644.66	1.888	0	P 2	11558.46	11558.46	1.341	0
P 2	13721.96	13721.96	1.385	0	P 1	11622.87	11622.86	1.003	-1
P 1	13793.96	13793.96	1.307	0	R 1	11765.15	11765.16	0.766	1
R 1	13936.25				R 2	11806.48	11806.47	1.130	-1
R 2	13969.98	13969.98	1.661	0	RMS= 1.0 10² cm⁻¹				
RMS= 1.2 10² cm⁻¹									
H₂ H → C⁺ 2-0					H₂ H → C⁺ 2-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	17887.58				P 3	15706.35			
P 3	17995.56	17995.60	0.826	4	P 2	15763.56	15763.59	3.212	3
P 2	18062.70				P 1	15839.51	15839.47	5.744	-4
P 1	18145.02				R 1	15997.94			
R 4	18296.86	18296.78	0.347	-8	R 3	16010.09	16010.18	0.904	9
R 3	18299.29				R 2	16015.27			
R 1	18303.45	18303.43	1.110	-2	RMS= 4.1 10² cm⁻¹				
R 2	18314.40	18314.39	0.914	-1					
RMS= 3.7 10² cm⁻¹									
H₂ H → C⁺ 2-2					H₂ H → C⁺ 2-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 6	13280.84	13280.80	0.908	-4	P 2	11554.77	11554.77	1.190	0
P 5	13355.80	13355.74	0.955	-6	P 1	11636.38	11636.34	0.595	-4
P 4	13448.61	13448.63	1.263	2	R 1	11794.81	11794.80	0.276	-1
P 3	13559.55	13559.55	1.155	0	R 2	11806.48	11806.47	1.130	-1
P 2	13600.07	13600.07	2.681	0	RMS= 1.8 10² cm⁻¹				
P 1	13668.42	13668.39	1.138	-3					
R 1	13826.84	13826.85	2.023	1					
R 2	13851.77	13851.79	1.462	2					
R 4	13857.89	13857.89	1.247	0					
R 3	13863.29	13863.28	0.730	-1					
RMS= 2.2 10² cm⁻¹									

H₂ H → C⁻ 0-0					H₂ H → C⁻ 0-1				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 3	13850.00	13850.01	1.471	1	Q 3	11560.20	11560.20	1.114	0
Q 4	13856.12	13856.12	2.651	0	Q 1	11560.40	11560.43	2.781	3
Q 2	13861.71	13861.71	1.467	0	Q 2	11562.51	11562.51	0.422	0
Q 1	13865.89	13865.89	1.390	0	Q 4	11578.74	11578.66	0.615	-8
Q 5	13872.07	13872.09	1.322	2	Q 5	11610.12	11610.14	0.464	2
RMS= 0.8 10²cm⁻¹					RMS= 3.3 10²cm⁻¹				
H₂ H → C⁻ 0-2					H₂ H → C⁻ 1-0				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 1	9388.89				Q 2	16121.46	16121.49	1.394	3
Q 2	9397.13				Q 1	16146.07	16146.15	0.214	8
Q 3	9404.00	9403.99	2.876	-1	RMS= 4.3 10²cm⁻¹				
Q 4	9434.69	9434.68	0.892	-1					
RMS= 0.7 10²cm⁻¹									
H₂ H → C⁻ 1-1					H₂ H → C⁻ 1-2				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 3	13801.70	13801.70	1.474	0	Q 2	11656.88	11656.88	1.065	0
Q 2	13822.25	13822.25	1.490	0	Q 1	11669.07	11669.00	0.478	-7
Q 1	13840.58	13840.58	1.422	0	RMS= 3.8 10²cm⁻¹				
RMS= 0.3 10²cm⁻¹									
H₂ H → C⁻ 1-3					H₂ H → C⁻ 2-0				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 3	9620.32	9620.35	3.469	3	Q 2	18183.14	18183.19	1.118	5
Q 2	9622.69	9622.69	0.384	0	Q 1	18187.67	18187.64	1.059	-3
Q 1	9628.84	9628.83	6.210	-1	RMS= 3.7 10²cm⁻¹				
RMS= 1.9 10²cm⁻¹									
H₂ H → C⁻ 2-1					H₂ H → C⁻ 2-2				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
Q 4	15789.19	15789.25	5.622	6	Q 5	13620.28	13620.29	1.193	1
Q 3	15846.99	15847.06	2.338	7	Q 4	13645.15	13645.15	1.161	0
Q 1	15882.18	15882.21	6.964	3	Q 3	13690.79	13690.81	1.439	2
Q 2	15883.94	15883.95	4.746	1	Q 1	13710.66	13710.67	1.607	1
RMS= 4.4 10²cm⁻¹					Q 2	13718.56			
					RMS= 1.0 10²cm⁻¹				

$\text{H}_2 \text{ H} \rightarrow \text{C}^- \quad 2\text{-}3$									
	Calc cm^{-1}	Obs cm^{-1}	W	O-C 10^{+2}cm^{-1}					
Q 4	11631.93	11631.88		2.265	-5				
Q 3	11665.60	11665.63		1.246	3				
Q 1	11670.44	11670.44		1.105	0				
Q 2	11684.38	11684.38		1.711	0				
RMS= $3.2 \cdot 10^2 \text{cm}^{-1}$									
$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^+ \quad 0\text{-}0$					$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^+ \quad 0\text{-}1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2}\text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2}\text{cm}^{-1}$
P 5	12702.53	12702.53	0.913	0	P 6	10355.79	10355.75	1.871	-4
P 4	12768.38	12768.39	1.039	1	P 5	10409.52			
P 3	12822.31	12822.32	1.058	1	P 4	10494.43	10494.44	2.670	1
P 2	12859.41	12859.41	3.053	0	P 3	10533.11	10533.06	0.538	-5
R 1	13130.21	13130.23	0.373	2	P 2	10560.28	10560.27	4.269	-1
R 2	13195.21	13195.21	1.012	0	R 1	10824.69	10824.73	1.929	4
R 3	13243.74	13243.74	0.923	0	R 2	10896.07	10896.08	0.823	1
R 4	13263.66				R 3	10954.54	10954.53	3.200	-1
R 5	13290.47				R 4	10989.71	10989.69	1.937	-2
RMS= $0.5 \cdot 10^2 \text{cm}^{-1}$					R 5	10997.45	10997.47	1.239	2
					R 6	11090.90			
					RMS= $2.1 \cdot 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^+ \quad 1\text{-}0$					$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^+ \quad 1\text{-}1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2}\text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2}\text{cm}^{-1}$
P 5	14784.23	14784.22	0.598	-1	P 6	12394.30	12394.33	0.982	3
P 4	14799.82	14799.81	1.473	-1	P 5	12491.21	12491.22	0.731	1
P 3	14893.78	14893.76	0.887	-2	P 4	12525.87	12525.86	1.098	-1
P 2	14948.12	14948.10	0.589	-2	P 3	12604.57	12604.57	1.057	0
R 1	15201.67				P 2	12648.98	12648.98	1.054	0
R 2	15226.64				R 1	12896.16	12896.16	1.047	0
R 4	15302.17				R 2	12927.51	12927.51	1.032	0
R 3	15325.44				R 4	13028.22	13028.23	0.973	1
RMS= $1.0 \cdot 10^2 \text{cm}^{-1}$					R 3	13036.23	13036.25	0.953	2
					RMS= $1.4 \cdot 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^+ \quad 1\text{-}2$					$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^+ \quad 2\text{-}1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2}\text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2}\text{cm}^{-1}$
P 6	10286.15	10286.14	1.567	-1	P 6	14272.98	14272.99	1.738	1
P 4	10360.85	10360.83	2.123	-2	P 5	14407.68	14407.68	1.401	0
P 5	10381.94	10381.91	0.510	-3	P 4	14518.40	14518.40	1.101	0
P 3	10457.77	10457.85	0.900	8	P 2	14528.65	14528.65	1.170	0
P 2	10485.48	10485.48	4.336	0	P 3	14599.96	14599.95	0.899	-1
R 1	10725.06	10725.11	0.140	5	R 1	14891.54			
R 2	10764.01	10764.02	0.670	1	R 4	14906.90	14906.90	0.188	0
R 4	10863.20				R 2	14920.04	14920.11	0.194	7
R 3	10889.43				R 3	14952.70			
RMS= $2.6 \cdot 10^2 \text{cm}^{-1}$					RMS= $1.4 \cdot 10^2 \text{cm}^{-1}$				

$\text{H}_2 \text{ } \Gamma^+ \rightarrow \text{C}^+ \text{ } 2-2$					$\text{H}_2 \text{ } \Gamma^+ \rightarrow \text{C}^+ \text{ } 3-2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 6	12164.83	12164.81	1.131	-2	P 5	13854.15	13854.06	0.343	-9
P 5	12298.41	12298.42	3.379	1	P 4	13997.64	13997.65	1.256	1
P 4	12353.38	12353.38	1.041	0	P 3	14131.24	14131.23	0.861	-1
P 2	12365.16	12365.15	1.114	-1	P 2	14201.67	14201.67	1.254	0
P 3	12453.15	12453.16	0.924	1	R 3	14361.64			
R 1	12720.45				R 1	14398.54			
R 4	12741.88	12741.89	0.886	1	R 2	14400.81	14400.80	0.738	-1
R 2	12756.54	12756.54	1.044	0	RMS= $2.5 \times 10^{-2} \text{cm}^{-1}$				
R 3	12805.90								
RMS= $0.8 \times 10^{-2} \text{cm}^{-1}$									
$\text{H}_2 \text{ } \Gamma \rightarrow \text{C}^- \text{ } 0-0$					$\text{H}_2 \text{ } \Gamma \rightarrow \text{C}^- \text{ } 0-1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 6	12341.00	12341.02	3.621	2	P 6	10097.45	10097.45	3.869	0
P 5	12460.81	12460.80	1.838	-1	P 5	10198.86	10198.85	2.352	-1
P 4	12579.40	12579.39	1.066	-1	P 4	10302.02			
P 3	12694.18	12694.18	1.050	0	P 3	10404.37	10404.37	1.845	0
P 2	12800.51	12800.50	1.033	0	P 2	10501.30	10501.31	1.398	1
R 6	12955.41	12955.39	0.827	-2	R 1	10691.27	10691.27	1.310	0
R 5	12972.81	12972.81	0.915	0	R 2	10700.51	10700.50	1.580	-1
R 4	12986.39	12986.40	0.964	1	R 3	10705.85	10705.85	2.120	0
R 3	12995.66	12995.66	0.976	0	R 4	10709.01	10709.02	2.398	1
R 1	12996.76	12996.77	1.008	1	R 5	10710.87	10710.86	1.384	-1
R 2	12999.71	12999.71	0.940	0	R 6	10711.85	10711.79	0.159	-6
RMS= $0.8 \times 10^{-2} \text{cm}^{-1}$					RMS= $1.0 \times 10^{-2} \text{cm}^{-1}$				
$\text{H}_2 \text{ } \Gamma \rightarrow \text{C}^- \text{ } 1-1$					$\text{H}_2 \text{ } \Gamma \rightarrow \text{C}^- \text{ } 1-2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 7	12082.98	12083.00	1.159	2	P 5	10173.69	10173.70	3.514	1
P 6	12193.43	12193.35	0.607	-8	P 4	10265.00	10265.00	2.849	0
P 5	12302.69	12302.68	1.041	-1	P 3	10353.44	10353.43	5.273	-1
P 4	12409.05	12409.04	1.376	1	P 2	10435.15	10435.15	1.839	0
P 3	12509.64	12509.64	1.119	0	R 1	10625.02	10625.02	4.023	0
P 2	12600.53	12600.53	1.064	0	R 2	10642.16	10642.15	2.371	-1
P 5	12794.89	12794.88	0.903	-1	R 3	10653.48	10653.49	3.823	1
R 1	12796.54	12796.54	1.101	0	R 4	10660.94	10660.99	1.371	4
R 4	12804.99	12805.04	0.959	5	R 5	10665.90	10665.88	1.485	-2
R 2	12807.53	12807.53	1.034	0	RMS= $1.2 \times 10^{-2} \text{cm}^{-1}$				
R 3	12809.68	12809.68	1.010	0					
RMS= $2.4 \times 10^{-2} \text{cm}^{-1}$									

H ₂ $\Gamma \rightarrow C^-$ 2-1					H ₂ $\Gamma \rightarrow C^-$ 2-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 7	14006.56	14006.56	0.639	0	P 6	12016.74	12016.83	0.576	9
P 6	14128.04				P 5	12115.35	12115.36	1.123	1
P 5	14244.34	14244.34	0.907	0	P 4	12209.86	12209.86	1.322	0
P 4	14353.91	14353.91	2.477	0	P 3	12298.06	12298.06	1.093	0
P 3	14454.26	14454.26	1.040	0	P 2	12377.36	12377.36	1.113	0
P 2	14542.74	14542.74	1.178	0	R 1	12569.64	12569.64	1.056	0
R 5	14718.47	14718.46	0.610	-1	R 2	12587.02	12587.02	1.047	0
R 4	14739.60	14739.60	0.779	0	R 5	12589.48	12589.49	0.984	1
R 1	14741.15	14741.16	1.017	1	R 3	12595.14	12595.14	1.063	0
R 3	14751.34	14751.34	0.743	0	R 4	12595.55	12595.55	1.101	0
R 2	14752.39	14752.39	0.631	0	RMS= 2.1 10 ² cm ⁻¹				
RMS= 0.5 10 ² cm ⁻¹									
H ₂ $\Gamma \rightarrow C^-$ 2-3					H ₂ $\Gamma \rightarrow C^-$ 3-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	10196.64	10196.62	5.355	-2	P 6	15879.20	15879.22	9.080	2
P 3	10272.87	10272.88	3.620	1	P 5	16003.71	16003.79	2.041	8
P 2	10343.18	10343.18	2.250	0	P 4	16118.22	16118.30	1.037	8
R 1	10529.42	10529.42	3.744	0	P 3	16220.86			
R 2	10552.83				P 2	16309.90			
R 3	10569.95	10569.97	3.507	2	R 4	16490.76			
R 4	10582.33	10582.30	2.712	-3	R 1	16507.75	16507.71	1.287	-4
RMS= 1.7 10 ² cm ⁻¹					R 3	16510.71			
					R 2	16516.70			
					RMS= 4.3 10 ² cm ⁻¹				
H ₂ $\Gamma \rightarrow C^-$ 3-2					H ₂ $\Gamma \rightarrow C^-$ 3-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 4	13974.17	13974.17	0.961	0	P 4	11960.95	11960.94	1.118	-1
P 3	14064.66	14064.63	0.894	-3	P 3	12039.47	12039.48	1.267	1
P 2	14144.52	14144.50	0.712	-2	P 2	12110.33	12110.34	1.113	1
R 1	14336.24	14336.23	1.317	-1	R 1	12296.02	12296.01	1.102	-1
R 4	14346.72	14346.79	0.302	7	R 2	12317.14	12317.14	6.835	0
R 2	14351.33	14351.31	0.609	-2	R 3	12329.32	12329.34	1.107	2
R 3	14354.51	14354.50	0.905	-1	R 4	12333.50	12333.51	1.016	1
RMS= 2.4 10 ² cm ⁻¹					RMS= 0.7 10 ² cm ⁻¹				

$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 0-0$					$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 0-1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 5	12978.03	12978.06	0.693	3	Q 1	10678.89			
Q 1	12984.39	12984.39	1.008	0	Q 2	10710.70			
Q 2	13009.91	13009.91	1.166	0	Q 5	10716.08	10716.07	0.895	-1
Q 4	13011.02	13011.00	0.932	-2	Q 3	10727.80	10727.79	2.156	-1
Q 3	13017.60	13017.60	0.874	0	Q 4	10733.64	10733.63	0.737	-1
RMS= $1.6 \cdot 10^2 \text{cm}^{-1}$					RMS= $0.6 \cdot 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 0-2$					$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 1-1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 1	8507.38				Q 5	12754.59	12754.60	0.952	1
Q 2	8545.33	8545.33	0.461	0	Q 3	12759.23	12759.23	1.030	0
Q 3	8571.60				Q 1	12767.60	12767.61	1.046	1
Q 5	8587.09	8587.07	1.315	-2	Q 2	12782.16	12782.11	0.685	-5
Q 4	8589.59				Q 4	12815.34	12815.36	1.041	2
Q 6	8598.72	8598.72	2.851	0	RMS= $2.3 \cdot 10^2 \text{cm}^{-1}$				
RMS= $1.3 \cdot 10^2 \text{cm}^{-1}$									
$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 1-2$					$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 2-0$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 1	10596.09	10596.17	0.835	8	Q 5	16895.22	16895.21	0.710	-1
Q 3	10603.03	10603.03	1.643	0	Q 1	16952.77	16952.77	0.036	0
Q 2	10616.79	10616.79	1.390	0	Q 4	17009.19			
Q 5	10625.60	10625.64	0.825	4	Q 3	17041.57			
Q 4	10671.29				Q 2	17076.75			
RMS= $4.1 \cdot 10^2 \text{cm}^{-1}$					RMS= $0.9 \cdot 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 2-2$					$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 2-3$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 1	12475.76	12475.74	1.066	-2	Q 1	10435.54	10435.54	6.209	0
Q 5	12504.28	12504.30	0.717	2	Q 2	10573.98	10573.97	0.182	-1
Q 4	12587.76				RMS= $1.1 \cdot 10^2 \text{cm}^{-1}$				
Q 3	12595.56	12595.55	1.101	-1					
Q 2	12612.17								
RMS= $1.8 \cdot 10^2 \text{cm}^{-1}$									
$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 3-0$					$\text{H}_2 \text{ I}^+ \rightarrow \text{C}^- \quad 3-3$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 4	18564.93	18564.88	0.231	-5	Q 4	12130.28	12130.33	1.140	5
Q 3	18685.83	18685.77	0.806	-6	Q 3	12214.64	12214.68	0.256	4
Q 2	18754.84				Q 2	12256.07	12256.08	1.813	1
Q 1	18789.28	18789.30	0.861	2	Q 1	12272.05	12272.06	1.037	1
RMS= $4.6 \cdot 10^2 \text{cm}^{-1}$					RMS= $2.9 \cdot 10^2 \text{cm}^{-1}$				

$\text{H}_2 \Gamma \rightarrow \text{C}^+ \quad 0-0$					$\text{H}_2 \Gamma \rightarrow \text{C}^+ \quad 0-1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 5	12677.90	12677.91	1.013	1	Q 6	10350.57	10350.53	6.542	-4
Q 4	12746.44	12746.44	0.960	0	Q 5	10384.88			
Q 3	12812.12				Q 4	10472.49			
Q 2	12871.79	12871.81	0.985	2	Q 3	10522.92			
Q 1	12920.81	12920.81	1.008	0	Q 2	10572.65	10572.65	0.620	0
RMS= 1.3 10^2cm^{-1}					Q 1	10615.29	10615.30	1.038	1
					RMS= 3.8 10^2cm^{-1}				
$\text{H}_2 \Gamma \rightarrow \text{C}^+ \quad 1-0$					$\text{H}_2 \Gamma \rightarrow \text{C}^+ \quad 1-1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 5	14773.88	14773.97	0.540	9	Q 6	12434.60	12434.60	0.873	0
Q 4	14850.27				Q 5	12480.87	12480.91	0.829	4
Q 3	14919.14	14919.13	0.309	-1	Q 4	12576.32	12576.34	3.360	2
Q 2	14977.05	14977.04	0.108	-1	Q 3	12629.94			
Q 1	15020.04				Q 2	12677.92	12677.91	1.013	-1
RMS= 7.0 10^2cm^{-1}					Q 1	12714.52	12714.53	1.102	1
					RMS= 2.4 10^2cm^{-1}				
$\text{H}_2 \Gamma \rightarrow \text{C}^+ \quad 1-2$					$\text{H}_2 \Gamma \rightarrow \text{C}^+ \quad 2-0$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	10514.42	10514.42	2.238	0	Q 3	16864.01	16864.00	0.649	-1
Q 1	10543.43	10543.43	0.671	0	Q 2	16921.67			
RMS= 0.3 10^2cm^{-1}					Q 1	16962.25	16962.19	0.192	-6
					RMS= 2.9 10^2cm^{-1}				
$\text{H}_2 \Gamma \rightarrow \text{C}^+ \quad 2-1$					$\text{H}_2 \Gamma \rightarrow \text{C}^+ \quad 2-2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 6	14358.18	14358.17	0.510	-1	Q 6	12250.03	12249.99	0.807	-4
Q 5	14415.48	14415.49	0.222	1	Q 5	12306.20	12306.20	3.189	0
Q 4	14517.97	14517.97	1.269	0	Q 4	12352.95	12352.91	3.235	-4
Q 3	14574.80	14574.80	1.236	0	Q 3	12428.00			
Q 2	14622.54	14622.54	1.045	0	Q 2	12459.04	12459.04	1.125	0
Q 1	14656.73				Q 1	12485.64	12485.68	0.756	4
RMS= 0.7 10^2cm^{-1}					RMS= 2.8 10^2cm^{-1}				
$\text{H}_2 \Gamma \rightarrow \text{C}^+ \quad 2-3$					$\text{H}_2 \text{I}^- \rightarrow \text{C}^+ \quad 3-0$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	10413.74	10413.74	2.802	0	Q 3	18628.32	18628.31	1.401	-1
Q 1	10453.60	10453.59	2.440	-1	Q 2	18688.27			
RMS= 0.7 10^2cm^{-1}					Q 1	18729.40	18729.43	0.290	3
					RMS= 1.6 10^2cm^{-1}				

$\text{H}_2 \text{ I}^- \rightarrow \text{C}^+ \quad 3-1$					$\text{H}_2 \text{ I}^- \rightarrow \text{C}^+ \quad 3-2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 4	16277.34	16277.33	1.072	-1	Q 5	14057.37	14057.30	0.275	-7
Q 3	16339.11				Q 4	14112.32	14112.31	0.738	-1
Q 2	16389.13	16389.13	1.090	0	Q 3	14192.31	14192.31	0.362	0
Q 1	16423.89				Q 2	14225.64	14225.62	1.098	-2
RMS= $0.7 \times 10^2 \text{cm}^{-1}$					Q 1	14252.80	14252.78	0.620	-2
					RMS= $2.3 \times 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ I}^- \rightarrow \text{C}^+ \quad 3-3$									
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$					
Q 2	12180.34	12180.34	1.312	0					
Q 1	12220.76	12220.75	1.176	-1					
RMS= $0.5 \times 10^2 \text{cm}^{-1}$									
$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^+ \quad 0-0$					$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^+ \quad 0-1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 4	13071.93	13071.93	1.002	0	P 5	10783.95	10783.96	0.783	1
P 3	13076.80	13076.80	0.562	0	P 3	10787.59	10787.57	15.600	-2
P 5	13076.97				P 4	10797.98	10797.98	1.803	0
R 1	13384.69	13384.69	1.244	0	P 6	10804.98	10804.99	1.443	1
R 2	13498.75	13498.75	1.278	0	R 1	11079.18	11079.13	0.125	-5
R 3	13618.18	13618.20	1.222	3	R 2	11199.62			
R 4	13712.86	13712.85	1.654	-1	R 3	11328.97	11328.95	0.806	-2
RMS= $1.1 \times 10^2 \text{cm}^{-1}$					R 4	11438.90	11438.88	0.410	-2
					RMS= $2.0 \times 10^2 \text{cm}^{-1}$				
$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^+ \quad 1-1$					$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^+ \quad 1-2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 5	12870.76	12870.72	8.885	-4	P 4	10781.83	10781.82	2.456	-1
P 4	12946.85	12946.85	1.022	0	P 3	10825.44	10825.44	1.095	0
P 3	12972.25	12972.25	1.034	0	R 1	11092.74			
R 1	13263.83	13263.84	0.912	1	R 2	11184.99	11184.99	0.977	0
R 2	13348.49	13348.49	1.196	0	R 3	11268.97			
R 3	13415.78	13415.71	0.938	-7	R 4	11317.85			
R 4	13482.87	13482.94	0.631	7	RMS= $0.3 \times 10^2 \text{cm}^{-1}$				
RMS= $3.6 \times 10^2 \text{cm}^{-1}$									

$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^+ \quad 2-2$					$\text{H}_2 \text{ J}^- \rightarrow \text{C}^- \quad 0-0$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 6	12695.19	12695.18	0.800	-1	P 6	13008.45	13008.44	1.041	-1
P 5	12789.73	12789.68	0.934	-5	P 5	13030.08	13030.08	0.968	0
P 4	12818.47	12818.46	0.794	-1	P 4	13050.89			
P 3	12891.72	12891.72	1.094	0	P 3	13072.52	13072.52	0.853	0
R 1	13159.02	13159.02	1.251	0	R 1	13375.10	13375.10	1.238	0
R 2	13221.63	13221.61	1.084	-2	R 2	13471.19	13471.19	1.217	0
R 4	13272.25	13272.23	0.948	-2	R 3	13564.94	13564.93	1.183	-1
R 3	13297.22	13297.22	0.961	0	R 4	13653.83	13653.84	1.270	1
RMS= 21 10 ² cm ⁻¹					R 5	13736.45	13736.44	1.131	-1
					RMS= 0.5 10 ² cm ⁻¹				
$\text{H}_2 \text{ J}^- \rightarrow \text{C}^- \quad 0-1$					$\text{H}_2 \text{ J}^- \rightarrow \text{C}^- \quad 1-1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 7	10762.59	10762.63	0.518	4	P 5	12916.29	12916.30	0.986	1
P 6	10764.89				P 4	12944.45	12944.45	1.054	0
P 5	10768.13				P 3	12974.97	12974.97	1.085	0
P 4	10773.50	10773.51	0.885	1	R 1	13261.87	13261.87	1.342	0
P 3	10782.71	10782.64	0.842	-7	R 2	13342.93	13342.93	1.573	0
R 1	11069.61	11069.60	1.386	-1	R 3	13423.29	13423.29	1.105	0
R 2	11171.99				R 4	13500.21	13500.19	0.866	-2
R 3	11275.13				RMS= 1.04 10 ² cm ⁻¹				
R 4	11376.45	11376.45	0.037	0					
R 5	11474.50								
RMS= 4.0 10 ² cm ⁻¹									
$\text{H}_2 \text{ J}^- \rightarrow \text{C}^- \quad 1-2$					$\text{H}_2 \text{ J}^- \rightarrow \text{C}^- \quad 2-2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 6	10777.36	10777.41	0.864	5	P 5	12812.36	12812.37	1.023	1
P 5	10787.30	10787.30	2.369	0	P 4	12849.06	12849.05	1.016	-1
P 4	10800.40	10800.40	1.166	0	P 3	12887.78	12887.77	1.054	-1
P 3	10818.77	10818.81	1.476	4	R 1	13159.36	13159.36	1.099	0
R 1	11090.35	11090.35	2.144	0	R 2	13226.21	13226.24	1.694	3
R 2	11177.56				R 3	13292.15	13292.14	1.324	-1
R 3	11267.09				RMS= 1.7 10 ² cm ⁻¹				
R 4	11356.17								
RMS= 2.3 10 ² cm ⁻¹									
$\text{H}_2 \text{ J}^- \rightarrow \text{C}^- \quad 2-3$					$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^- \quad 0-0$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
P 4	10835.84	10835.82	3.815	-2	Q 2	13264.39	13264.39	0.983	0
P 3	10862.60	10862.62	4.206	2	Q 3	13321.15	13321.14	1.169	-1
R 1	11119.14	11119.12	3.411	-2	Q 4	13385.46	13385.48	0.808	2
R 2	11192.03	11192.03	0.399	0	Q 5	13427.22	13427.20	0.917	-2
R 3	11266.97	11266.96	0.653	-1	RMS= 1.3 10 ² cm ⁻¹				
RMS= 1.9 10 ² cm ⁻¹									

$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^- \quad 1-1$					$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^- \quad 1-2$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	13149.84	13149.83	0.941	-1	Q 2	10984.46	10984.46	1.607	0
Q 3	13180.21	13180.21	0.994	0	Q 3	11024.01	11024.01	2.242	0
Q 4	13194.88				RMS = 0.3 10^2cm^{-1}				
Q 5	13209.24	13209.20	0.521	-4					
RMS = 1.7 10^2cm^{-1}									
$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^- \quad 1-3$					$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^- \quad 2-0$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	8950.28	8950.24	0.484	-3	Q 5	17425.58			
RMS = 3.2 10^2cm^{-1}					Q 4	17500.51	17500.58	0.875	7
					Q 3	17506.66			
					Q 2	17515.32	17515.30	0.757	-2
					RMS = 5.1 10^2cm^{-1}				
$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^- \quad 2-2$					$\text{H}_2 \text{ J}^+ \rightarrow \text{C}^- \quad 2-3$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 5	13034.64	13034.64	0.960	0	Q 2	11016.56	11016.55	1.578	-1
Q 2	13050.74	13050.75	0.585	1	Q 3	11035.47	11035.45	1.752	-2
Q 3	13060.65	13060.64	1.019	-1	Q 4	11065.86	11065.86	1.324	0
Q 4	13079.08	13079.08	1.008	0	RMS = 0.8 10^2cm^{-1}				
RMS = 1.1 10^2cm^{-1}									
$\text{H}_2 \text{ J}^- \rightarrow \text{C}^+ \quad 0-0$					$\text{H}_2 \text{ J}^- \rightarrow \text{C}^+ \quad 0-1$				
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$		Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$
Q 2	13250.13	13250.13	1.281	0	Q 2	10950.99	10950.99	3.547	0
Q 3	13283.60	13283.60	1.162	0	Q 3	10994.40	10994.39	0.595	-1
Q 4	13315.72	13315.72	1.311	0	Q 4	11041.76	11041.76	1.413	0
Q 5	13345.34	13345.35	1.175	1	RMS = 0.6 10^2cm^{-1}				
RMS = 0.4 10^2cm^{-1}									
$\text{H}_2 \text{ J}^- \rightarrow \text{C}^+ \quad 1-1$									
	Calc cm^{-1}	Obs cm^{-1}	W	O-C $\times 10^{+2} \text{cm}^{-1}$					
Q 2	13143.25	13143.25	0.321	0					
Q 3	13165.34	13165.34	0.316	0					
Q 5	13176.09								
Q 4	13189.92	13189.93	0.295	1					
RMS = 0.5 10^2cm^{-1}									

TRANSITIONS

$$\mathbf{B' \rightarrow EF}$$

$$\mathbf{D \rightarrow EF}$$

H ₂ B' → E 0-0					H ₂ B' → E 0-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 8	10516.067	10516.073	3.020	6	P 1	11102.49			
P 7	10645.526	10645.526	3.897	0	P 2	11128.90	11128.86	0.318	-4
P 6	10768.450	10768.449	4.018	-1	R 0	11165.53	11165.46	0.832	-7
P 5	10883.873	10883.873	4.245	0	P 3	11193.65			
P 4	10990.746	10990.751	4.118	5	R 1	11254.77	11254.83	0.633	6
P 3	11088.055	11088.056	4.310	1	P 4	11296.10	11296.17	0.954	7
P 2	11174.858	11174.859	4.121	1	R 2	11381.56			
P 1	11250.322	11250.321	4.185	-1	P 5	11435.26	11435.30	3.150	4
R 0	11364.628	11364.630	3.343	2	R 3	11544.97			
R 6	11398.694	11398.693	1.551	-1	R 4	11743.68			
R 1	11402.602	11402.605	3.974	3	R 5	11976.03	11975.96	0.304	-7
R 5	11424.636	11424.638	3.002	2	RMS= 52 10 ⁻² cm ⁻¹				
R 2	11427.515	11427.509	3.918	-6					
R 4	11438.322	11438.327	2.242	5					
R 3	11439.368	11439.370	3.475	2					
RMS= 29 10 ⁻³ cm ⁻¹									
H ₂ B' → E 0-2					H ₂ B' → E 0-3				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 1	9907.70				P 5	8614.99	8614.98	5.968	0
P 2	9934.61				P 4	8701.04	8701.04	5.091	0
R 0	9970.56				P 3	8781.42	8781.41	5.724	-1
P 3	10000.11				P 2	8857.77	8857.80	2.759	3
R 1	10059.98				P 1	8924.51	8924.52	5.426	1
P 4	10103.56				R 0	9034.67	9034.67	4.886	0
R 2	10187.26	10187.31	1.087	5	R 1	9076.79	9076.79	7.597	0
R 3	10351.42	10351.40	5.264	-2	R 2	9110.43	9110.43	5.566	0
R 4	10551.14	10551.14	0.395	0	R 3	9132.73	9132.73	5.476	0
RMS= 26 10 ⁻² cm ⁻¹					R 4	9148.62	9148.62	4.217	0
					R 5	9155.75	9155.79	3.166	4
					RMS= 13 10 ⁻² cm ⁻¹				
H ₂ B' → EF 0-4					H ₂ B' → EF 0-5				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 1	8767.69	8767.68	0.582	-1	P 1	7688.40	7688.42	2.270	2
P 2	8794.38				P 2	7715.53			
R 0	8830.46	8830.47	0.950	1	R 0	7751.18	7751.21	0.218	3
P 3	8862.24	8862.22	6.012	-2	P 3	7781.46	7781.51	0.092	5
R 1	8919.97				R 1	7840.68			
P 4	8965.94				P 4	7885.60			
R 2	9047.04				R 2	7968.19			
P 5	9107.08	9107.06	0.584	-2	P 5	8027.02			
R 3	9213.56				R 3	8132.77			
R 4	9413.52				P 6	8204.13	8204.19	4.433	6
R 5	9647.84				R 4	8333.18			
RMS= 18 10 ⁻² cm ⁻¹					R 5	8567.78	8567.77	3.805	-1
					R 6	8834.37			
					RMS= 39 10 ⁻² cm ⁻¹				

H₂ B' → EF 0-6					H₂ B' → EF 0-7				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 5	6595.26	6595.25	0.499	-1	P 7	6532.94	6532.93	4.892	-1
P 4	6622.26				P 1	6620.69	6620.70	0.113	1
P 3	6635.61	6635.63	1.673	2	P 2	6626.43			
P 2	6839.27	6839.23	5.987	-4	R 0	6690.85	6690.90	0.635	5
P 1	6872.93	6872.90	0.480	-3	R 1	6772.97	6772.98	0.175	1
R 0	6969.82	6969.84	7.202	2	P 6	6833.21	6833.20	6.029	-1
R 3	6986.92	6986.91	0.897	-1	P 3	6840.84			
R 1	7025.21	7025.21	1.619	0	R 2	6879.09			
R 4	7069.84				P 4	6905.69	6905.76	12.110	7
R 2	7091.92	7091.91	4.719	-2	P 5	7029.11	7029.13	9.048	2
R 5	7136.03				R 3	7192.16	7192.19	4.989	3
RMS= 2.8 10²cm⁻¹					R 4	7353.27			
					R 6	7463.45			
					R 5	7569.88			
					RMS= 3.8 10²cm⁻¹				
H₂ B' → EF 0-9					H₂ B' → EF 0-10				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 2	5055.45	5055.46	1.200	1	P 2	4486.87			
P 1	5063.28				P 1	4487.32			
P 3	5073.98	5074.00	0.861	2	P 3	4508.46			
P 4	5124.36				P 4	4549.14			
R 0	5144.50	5144.49	2.882	-1	R 0	4563.26	4563.25	6.281	-1
P 5	5212.00	5212.05	5.588	5	R 1	4639.60	4639.65	1.704	5
R 1	5215.57				R 2	4739.52			
R 2	5308.10	5308.07	2.942	-3	R 3	4859.77			
R 3	5425.29	5425.26	5.793	-3	R 4	4996.72	4996.69	8.835	-3
R 4	5571.94				RMS= 24 10²cm⁻¹				
R 5	5752.77								
RMS= 3.5 10²cm⁻¹									
H₂ B' → E 1-0					H₂ B' → E 1-1				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 6	12582.40	12582.41	3.882	0	P 1	12982.53	12982.54	0.902	1
P 5	12718.21	12718.21	0.965	0	P 2	13003.93			
P 4	12842.36	12842.36	1.017	0	R 0	13040.55	13040.63	1.441	8
P 3	12953.42	12953.42	0.855	0	P 3	13059.02			
P 2	13049.89	13049.96	0.609	7	R 1	13120.14			
P 1	13130.36				P 4	13147.71	13147.79	0.147	8
R 0	13239.66	13239.66	0.991	0	R 2	13233.17	13233.14	0.710	-3
R 4	13252.28	13252.27	0.936	1	P 5	13269.60			
R 1	13267.97	13267.97	1.255	1	R 3	13379.30			
R 3	13273.70	13273.71	1.300	1	R 4	13557.63			
R 2	13279.13	13279.13	1.020	0	RMS= 5.4 10²cm⁻¹				
RMS= 1.7 10²cm⁻¹									

H₂ B' → E 1-3					H₂ B' → E 1-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 5	10449.326	10449.325	4.768	-1	P 1	10647.73			
P 4	10552.655	10552.656	4.534	1	P 2	10669.41	10669.33	0.084	-8
P 3	10646.781	10646.781	4.701	0	R 0	10705.49			
P 2	10732.800	10732.799	4.639	-1	P 3	10727.61	10727.61	2.889	0
P 1	10804.554	10804.554	4.481	0	R 1	10785.34	10785.28	3.969	-6
R 0	10909.698	10909.700	4.308	2	P 4	10817.55			
R 1	10942.158	10942.159	4.480	1	R 2	10898.65	10898.68	0.980	3
R 2	10962.043	10962.046	4.336	3	P 5	10941.42			
R 4	10962.570	10962.566	3.699	-4	R 3	11047.89			
R 3	10967.067	10967.067	4.247	0	P 6	11098.58	11098.66	0.755	8
RMS= 1.8 10⁻³ cm⁻¹					R 4	11227.47			
					RMS= 4.9 10⁻² cm⁻¹				
H₂ B' → EF 1-6					H₂ B' → EF 1-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
R 0	8844.844	8844.848	2.982	4	P 1	8500.73	8500.73	7.647	0
R 1	8890.573	8890.574	6.175	1	P 2	8501.46	8501.48	14.987	2
P 1	8752.969	8752.969	5.712	0	R 0	8565.88	8565.87	2.972	1
R 2	8943.539	8943.539	14.167	0	R 1	8638.34	8638.34	5.905	0
P 2	8714.296	8714.297	5.906	1	P 6	8647.16			
R 3	8821.259	8821.260	6.502	1	P 3	8706.21	8706.21	6.046	0
P 3	8500.973	8500.971	6.396	-2	R 2	8730.70	8730.71	5.229	1
R 4	8883.794	8883.790	3.504	-4	P 4	8757.31	8757.31	3.348	0
P 5	8429.599	8429.599	5.968	0	P 5	8863.45	8863.49	5.500	4
RMS= 1.6 10⁻³ cm⁻¹					R 3	9026.49	9026.50	5.890	1
					R 4	9167.22	9167.23	0.970	1
					RMS= 1.6 10⁻² cm⁻¹				
H₂ B' → EF 1-8					H₂ B' → EF 1-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 1	7611.24	7611.27	4.045	3	P 2	6361.89			
P 2	7624.22	7624.23	0.432	1	P 1	6367.36	6367.36	1.871	0
P 3	7667.79	7667.79	2.237	0	P 3	6373.82	6373.83	2.366	1
R 0	7673.85				P 4	6400.76			
P 4	7741.99				R 0	6438.29			
R 1	7748.84				P 5	6442.34	6442.41	3.370	7
P 5	7844.46	7844.46	5.514	0	R 1	6504.97	6504.97	7.065	0
R 2	7853.47				R 2	6591.14			
R 3	7988.07	7988.07	2.430	0	R 3	6694.11	6694.09	3.576	-2
R 4	8151.91				R 4	6810.67			
RMS= 1.8 10⁻² cm⁻¹					RMS= 3.1 10⁻² cm⁻¹				

H₂ B' → EF 2-0					H₂ B' → EF 2-1				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 7	14087.25	14087.23	0.236	-2	P 1	14699.17	14699.12	0.242	-5
P 6	14253.10				P 2	14717.84			
P 5	14405.02	14405.02	1.094	0	R 0	14754.46			
P 4	14541.64	14541.65	0.727	1	P 3	14767.25	14767.23	1.401	-2
P 3	14661.65	14661.65	1.772	0	R 1	14828.37			
P 2	14763.80	14763.80	0.729	0	P 4	14846.99	14847.00	1.448	1
P 1	14847.00	14847.00	1.448	0	R 2	14932.45			
R 5	14866.36				P 5	14956.41			
R 4	14922.98				R 3	15066.11			
R 0	14953.57	14953.54	0.091	-3	R 4	15228.33			
R 3	14960.51	14960.52	0.250	1	RMS= 1.9 10²cm⁻¹				
R 1	14976.20	14976.20	0.697	0					
R 2	14978.41	14978.45	0.147	4					
RMS= 0.8 10²cm⁻¹									
H₂ B' → EF 2-3					H₂ B' → EF 2-5				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺²cm⁻¹
P 5	12136.133	12136.134	1.226	1	P 1	11285.08	11285.08	1.123	0
P 4	12251.936	12251.942	1.217	6	P 2	11304.47	11304.47	1.283	0
P 3	12355.011	12355.012	1.146	1	R 0	11340.12	11340.14	0.325	2
P 2	12446.710	12446.710	1.107	0	P 3	11355.05	11355.05	1.131	0
P 1	12521.190	12521.189	1.056	-1	R 1	11414.28	11414.28	1.228	0
R 5	12597.476				P 4	11436.50			
R 0	12623.608	12623.610	1.106	2	R 2	11519.08	11519.00	0.639	-8
R 4	12633.271	12633.266	1.069	-5	P 5	11548.16			
R 1	12650.388	12650.390	1.097	2	R 3	11653.92	11653.92	0.798	0
R 3	12653.874	12653.875	1.161	1	P 6	11688.78			
R 2	12661.324	12661.326	1.083	2	R 4	11817.83			
RMS= 2.7 10²cm⁻¹					P 7	11857.95	11857.98	3.189	3
					R 5	12009.50			
					RMS= 2.5 10²cm⁻¹				
H₂ B' → EF 2-6					H₂ B' → EF 2-7				
	Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³cm⁻¹		Calc cm⁻¹	Obs cm⁻¹	W	O-C x10⁺³cm⁻¹
P 5	10116.406	10116.407	4.933	1	P 2	10215.369	10215.365	4.722	-4
P 4	10173.160				P 1	10217.371			
P 3	10209.204	10209.204	5.080	0	R 0	10279.787	10279.790	1.284	3
P 2	10428.206	10428.203	4.712	-3	P 6	10317.861			
P 1	10469.605	10469.605	4.879	0	R 1	10346.569	10346.568	4.125	-1
R 3	10508.066	10508.068	4.429	2	P 3	10414.438	10414.438	4.852	0
R 4	10554.495	10554.494	3.795	-1	R 2	10429.983	10429.983	3.649	0
R 0	10558.754	10558.758	4.633	4	P 4	10456.589	10456.594	4.227	5
R 5	10577.750	10577.755	3.920	5	P 5	10550.258	10550.261	3.996	3
R 1	10598.803	10598.803	4.723	0	R 3	10713.301	10713.298	4.085	-3
R 2	10642.820	10642.829	2.406	9	R 4	10837.924			
RMS= 3.2 10³cm⁻¹					R 5	11011.602	11011.607	1.403	5
					RMS= 3.0 10³cm⁻¹				

H₂ B' → EF 2-8					H₂ B' → EF 2-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 1	9327.87	9327.86	6.439	-1	P 2	8644.386	8644.387	5.647	1
P 2	9338.13	9338.13	0.911	0	P 3	8647.575	8647.574	5.936	-1
P 3	9376.02	9376.02	3.035	0	P 1	8659.962	8659.964	5.753	2
R 0	9387.76	9387.68	0.937	-8	P 4	8675.259	8675.264	4.776	5
P 4	9441.28				P 5	8733.147	8733.150	4.431	3
R 1	9457.07	9457.07	5.786	0	R 0	8733.440	8733.439	5.675	-1
P 5	9531.27				R 1	8789.160	8789.163	5.459	3
R 2	9552.75	9552.75	2.472	0	R 2	8859.000	8858.994	5.172	-6
R 3	9674.88	9674.88	4.387	0	R 3	8946.437	8946.437	5.264	0
R 4	9822.61	9822.61	4.756	0	R 4	9056.594	9056.592	2.354	-2
R 5	9992.61	9992.56	0.792	-5	R 5	9194.490	9194.486	6.405	-4
RMS= 1.8 10² cm⁻¹					RMS= 2.9 10² cm⁻¹				
H₂ B' → EF 2-10					H₂ B' → E 2-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 2	8075.805	8075.807	6.403	2	P 1	7340.99	7340.99	8.811	0
P 3	8082.051	8082.051	6.372	0	P 2	7341.91	7341.91	4.406	0
P 1	8084.000	8084.001	6.643	1	P 3	7364.75	7364.75	11.912	0
P 4	8100.038	8100.041	5.922	3	R 0	7405.31	7405.31	2.786	0
P 5	8129.148	8129.148	5.891	0	P 4	7408.44	7408.42	6.913	-2
R 0	8152.200	8152.203	1.187	3	R 1	7470.19	7470.23	0.487	4
R 1	8213.198	8213.199	5.870	1	P 5	7470.28	7470.27	3.409	-1
R 2	8290.419	8290.410	5.534	-9	R 2	7556.52	7556.52	2.660	0
R 3	8380.914	8380.913	5.998	-1	R 3	7663.61	7663.62	6.665	1
R 4	8481.373	8481.368	2.491	-5	R 4	7789.77	7789.79	1.925	2
R 5	8590.491	8590.496	4.475	5	R 5	7931.62	7931.61	2.812	-1
RMS=3.6 10³ cm⁻¹					RMS= 0.9 10² cm⁻¹				
H₂ B' → EF 2-12					H₂ B' → EF 2-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁻² cm ⁻¹
P 2	6621.82				P 2	5948.78			
P 1	6625.60				P 1	5953.05	5953.05	3.766	0
P 3	6639.09	6639.09	0.778	0	P 3	5963.79	5963.83	4.765	4
P 4	6678.69	6678.75	0.258	6	P 4	5998.22			
R 0	6692.51				R 0	6019.88			
P 5	6741.59	6741.58	5.401	-1	R 1	6082.25	6082.25	4.008	0
R 1	6754.80				R 2	6163.39			
R 2	6836.44	6836.39	3.431	-5	R 3	6262.65	6262.66	0.309	1
R 3	6937.95				R 4	6379.55	6379.59	0.674	4
R 4	7060.02				RMS= 2.6 10² cm⁻¹				
R 5	7202.93								
RMS= 2.7 10² cm⁻¹									

H ₂ B' → EF 2-14					H ₂ B' → EF 2-18				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ¹² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ¹² cm ⁻¹
P 1	5260.44	5260.47	0.306	3	P 1	2688.07	2688.07	15.786	0
P 2	5260.98	5260.99	0.875	1	P 2	2697.65	2697.68	5.669	3
P 3	5282.87	5282.86	2.378	-1	P 3	2731.88	2731.88	29.699	0
R 0	5324.84				R 0	2747.69			
P 4	5325.24	5325.24	1.393	0	P 4	2787.99	2787.98	4.274	-1
P 5	5386.74	5386.76	1.407	2	R 1	2817.27	2817.27	30.717	0
R 1	5389.64	5389.60	6.739	-4	P 5	2861.47	2861.46	10.935	-1
R 2	5475.59				R 2	2912.26	2912.30	2.873	4
R 3	5581.74				R 3	3030.74	3030.75	18.651	1
R 4	5706.57				R 4	3169.32			
R 5	5848.08				R 5	3322.82			
RMS= 3.3 10 ² cm ⁻¹					RMS= 0.9 10 ² cm ⁻¹				
H ₂ B' → EF 3-3					H ₂ B' → EF 3-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ¹² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ¹² cm ⁻¹
P 5	13644.37	13644.37	2.012	0	P 1	13895.63	13895.60	0.795	-3
P 4	13768.44	13768.44	1.312	0	P 2	13912.01			
P 3	13878.67	13878.67	1.424	0	R 0	13948.09	13948.10	1.593	1
P 2	13975.40	13975.41	1.465	1	P 3	13959.50	13959.47	0.377	-3
P 1	14052.45				R 1	14017.23	14017.18	0.499	-5
R 0	14152.30	14152.25	0.662	-5	P 4	14033.34	14033.28	0.685	-6
R 3	14162.12	14162.15	0.982	3	R 2	14114.44	14114.44	0.963	0
R 1	14174.05	14174.03	0.785	-2	P 5	14136.47			
R 2	14177.83	14177.82	0.466	-1	R 3	14242.94			
RMS= 1.8 10 ² cm ⁻¹					RMS= 3.0 10 ² cm ⁻¹				
H ₂ B' → EF 3-5					H ₂ B' → EF 3-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ¹² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ¹³ cm ⁻¹
P 1	12816.34				P 5	11624.649	11624.652	2.068	3
P 2	12833.16	12833.21	0.122	5	P 4	11689.665	11689.670	1.178	5
R 0	12868.81	12868.80	9.679	-1	P 3	11732.862	11732.867	1.824	5
P 3	12878.71	12878.68	0.412	-3	P 2	11956.899	11956.900	1.214	1
R 1	12937.94				P 1	12000.867	12000.871	1.919	4
P 4	12953.00				R 3	12016.308	12016.310	1.150	2
R 2	13035.59	13035.67	0.661	8	R 0	12087.448	12087.448	1.145	0
P 5	13056.40	13056.34	0.022	-6	R 1	12122.462	12122.462	1.408	0
R 3	13162.16				R 2	12159.325	12159.330	0.607	5
RMS= 2.9 10 ² cm ⁻¹					RMS= 3.3 10 ³ cm ⁻¹				
H ₂ B' → EF 3-7					H ₂ B' → EF 3-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ¹³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ¹² cm ⁻¹
P 2	11744.062	11744.062	1.226	0	P 1	10859.14	10859.13	3.977	-1
P 1	11748.633	11748.634	1.825	1	P 2	10866.83	10866.83	4.551	0
R 0	11808.480	11808.476	1.133	-4	P 3	10899.68	10899.68	3.777	0
R 1	11870.228	11870.235	1.183	7	R 0	10916.45	10916.39	3.238	-6
P 3	11938.097	11938.099	1.108	2	P 4	10957.78	10957.77	5.599	-1
R 2	11946.488	11946.489	1.127	1	R 1	10980.73	10980.73	4.445	0
R 3	12221.543				P 5	11039.51	11039.54	2.865	3
RMS=3.4 10 ³ cm ⁻¹					R 2	11069.25	11069.24	6.261	-1
					R 3	11183.12	11183.12	3.005	0
					RMS= 2.2 10 ² cm ⁻¹				

H ₂ B' → EF 3-9					H ₂ B' → EF 3-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹
P 3	10171.23	10171.23	5.044	0	P 2	9604.50	9604.53	4.408	3
P 2	10173.08	10173.14	3.132	6	P 3	9605.71	9605.72	4.431	1
P 1	10191.22	10191.22	4.766	0	P 1	9615.26	9615.32	1.128	6
P 4	10191.76	10191.77	5.055	1	P 4	9616.54	9616.54	3.164	0
P 5	10241.39	10241.39	5.958	0	P 5	9637.39	9637.39	4.123	0
R 0	10262.13	10262.13	4.127	0	R 0	9680.89			
R 1	10312.82	10312.82	4.785	0	R 1	9736.86			
R 2	10375.50	10375.51	3.511	1	R 2	9806.92			
R 3	10454.68	10454.68	3.660	0	R 3	9889.16	9889.19	0.436	3
RMS= 1.9 10 ² cm ⁻¹					RMS= 2.3 10 ² cm ⁻¹				
H ₂ B' → EF 3-11					H ₂ B' → EF 3-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ³ cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹
P 2	8870.600	8870.603	2.894	3	P 2	8150.51	8150.52	5.664	1
P 1	8872.251	8872.250	1.986	-1	P 1	8156.86	8156.87	6.066	1
P 3	8888.406	8888.402	3.613	-4	P 3	8162.75	8162.74	4.170	-1
P 4	8924.942	8924.942	1.764	0	P 4	8195.19	8195.19	3.679	0
R 0	8934.001	8934.002	0.153	1	R 0	8221.20	8221.20	6.027	0
P 5	8978.518				P 5	8249.83	8249.83	3.421	0
R 1	8993.846	8993.848	4.786	2	R 1	8278.46	8278.46	6.590	0
R 2	9073.026	9073.035	2.017	9	R 2	8352.94	8352.94	4.869	0
R 3	9171.852	9171.855	3.271	3	R 3	8446.19	8446.23	5.163	4
RMS= 3.5 10 ³ cm ⁻¹					RMS= 1.3 10 ² cm ⁻¹				
H ₂ B' → EF 3-13					H ₂ B' → -EF 3-14				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹
P 2	7477.47	7477.47	7.266	0	P 2	6789.67	6789.67	9.650	0
P 1	7484.31	7484.31	8.423	0	P 1	6791.70	6791.66	8.895	-4
P 3	7487.45	7487.45	12.552	0	P 3	6806.53	6806.53	14.459	0
P 4	7514.72	7514.73	6.502	0	P 4	6841.74	6841.74	7.834	0
R 0	7548.57	7548.57	5.471	0	R 0	6853.53	6853.53	3.618	0
P 5	7561.12	7561.11	6.581	-1	P 5	6894.98	6894.98	11.431	0
R 1	7605.91				R 1	6913.30	6913.30	11.065	0
R 2	7679.90	7679.89	5.954	-1	R 2	6992.10	6992.09	15.493	-1
R 3	7770.89	7770.89	6.848	0	R 3	7089.98	7089.98	9.123	0
RMS= 0.4 10 ² cm ⁻¹					RMS=1.3 10 ² cm ⁻¹				
H ₂ B' → E 3-16					H ₂ B' → E 3-17				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ² cm ⁻¹
P 2	5418.88	5418.87	0.353	-1	P 2	4789.54	4789.54	7.692	0
P 1	5421.41	5421.40	0.529	-1	P 1	4791.30	4791.30	11.310	0
P 3	5436.23	5436.22	37.825	-1	P 3	4806.48	4806.47	9.752	-1
P 4	5474.71				P 4	4841.85	4841.86	1.852	1
R 0	5483.70				R 0	4852.89	4852.88	1.407	-1
P 5	5536.31				P 5	4896.94	4896.94	3.221	0
R 1	5543.00	5542.99	19.616	-1	R 1	4912.90	4912.89	11.974	0
R 2	5621.31	5621.31	3.560	0	R 2	4991.96	4991.96	2.308	0
R 3	5719.68				R 3	5089.92	5089.88	1.002	-4
RMS= 1.5 10 ² cm ⁻¹					RMS= 0.7 10 ² cm ⁻¹				

H ₂ B' → E 3-18					H ₂ B' → E 4-0				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 1	4219.34	4219.34	13.434	0	P 5	17126.98	17127.06	0.887	8
P 2	4226.34	4226.38	9.558	4	P 4	17305.47	17305.45	0.110	-2
P 3	4255.54	4255.54	14.537	0	P 3	17457.36	17457.28	0.572	-8
R 0	4276.39	4276.38	11.318	-1	P 2	17577.01			
P 4	4304.49	4304.48	11.309	-1	R 4	17592.54	17592.51	0.105	-3
R 1	4340.93	4340.93	14.162	0	P 1	17678.79			
P 5	4369.72	4369.71	12.910	-1	R 3	17682.48	17682.41	0.058	-7
R 2	4428.77	4428.80	9.470	3	R 2	17742.24			
R 3	4538.99	4538.99	13.879	0	R 0	17766.78			
RMS= 14 10 ⁻² cm ⁻¹					R 1	17771.90			
					RMS= 7.1 10 ⁻² cm ⁻¹				
H ₂ D ⁺ → EF 0-0					H ₂ D ⁺ → EF 0-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	13387.78	13387.73	1.071	-5	P 2	12340.48	12340.47	3.235	-1
P 4	13452.75	13452.74	1.448	-1	R 0	12376.43	12376.37	0.453	-6
P 3	13516.95	13516.95	1.254	0	P 3	12429.01			
P 2	13580.72	13580.75	1.303	3	R 1	12488.88	12488.88	3.155	0
R 0	13770.49	13770.51	1.149	2	P 4	12565.57	12565.59	1.448	2
R 1	13831.50	13831.50	1.562	0	R 2	12649.27			
R 2	13889.52	13889.51	1.406	-1	P 5	12747.91			
R 3	13943.28	13943.24	1.329	-4	R 3	12855.33	12855.34	22.395	1
RMS= 22 10 ⁻² cm ⁻¹					RMS= 1.0 10 ⁻² cm ⁻¹				
H ₂ D ⁺ → EF 0-3					H ₂ D ⁺ → EF 1-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 3	11210.32	11210.37	0.179	5	P 2	15755.32	15755.27	2.585	-5
P 2	11263.64				R 0	15791.94	15791.95	9.512	1
R 0	11440.54	11440.56	1.109	2	P 3	15832.50	15832.48	5.988	-2
R 1	11505.69	11505.69	2.154	0	R 1	15893.62	15893.68	4.383	6
R 2	11572.44	11572.42	0.952	-2	P 4	15951.97	15951.94	3.997	-3
R 3	11636.64				R 2	16037.43	16037.51	1.151	8
RMS= 19 10 ⁻² cm ⁻¹					R 3	16220.34			
					RMS= 38 10 ⁻² cm ⁻¹				
H ₂ D ⁺ → EF 1-3					H ₂ D ⁺ → EF 1-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	13290.36	13290.35	0.940	-1	P 2	13420.80			
P 4	13356.91	13356.93	1.034	2	R 0	13456.88			
P 3	13420.26	13420.25	1.474	-1	P 3	13501.09	13501.09	0.961	0
P 2	13484.19	13484.19	1.185	0	R 1	13558.82			
R 0	13661.09	13661.08	1.238	-1	P 4	13621.81			
R 1	13715.64	13715.63	1.464	-1	R 2	13702.91	13702.93	0.104	2
R 2	13766.30	13766.32	1.778	2	P 5	13782.45	13782.54	0.171	9
R 3	13808.10	13808.10	1.422	0	R 3	13888.93	13888.84	1.013	-9
RMS= 13 10 ⁻² cm ⁻¹					RMS= 63 10 ⁻² cm ⁻¹				

H₂ D⁺ → EF 1-6					H₂ D⁺ → EF 1-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	11270.64	11270.63	1.082	-1	P 2	10375.61	10375.53	0.838	-8
P 3	11274.46	11274.44	1.879	-2	R 0	10425.24			
P 4	11278.14	11278.15	1.002	1	P 3	10441.27	10441.25	1.182	-2
P 2	11465.68	11465.69	0.134	1	R 1	10522.32			
R 0	11596.23	11596.31	1.541	8	P 4	10546.26	10546.28	0.108	2
R 3	11662.30	11662.24	0.959	-6	R 2	10657.73	10657.66	0.019	-7
R 1	11664.06	11664.05	0.902	-1	P 5	10685.50	10685.49	1.415	-1
R 2	11747.80	11747.82	0.703	2	R 3	10829.11	10829.12	4.448	1
RMS= 41 10²cm⁻¹					RMS= 29 10²cm⁻¹				
H₂ D⁺ → EF 1-9					H₂ D⁺ → EF 1-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	9681.86				P 2	9113.28			
P 3	9712.83	9712.80	2.954	-3	P 3	9147.30	9147.27	1.602	-3
R 0	9770.92				R 0	9189.68			
P 4	9780.24	9780.25	1.741	1	P 4	9205.02	9205.00	0.851	-2
R 1	9854.41				R 1	9278.45			
P 5	9887.38	9887.37	3.492	-1	P 5	9283.38	9283.36	3.328	-2
R 2	9963.98				R 2	9395.40			
R 3	10100.67	10100.67	0.587	0	R 3	9535.14	9535.20	3.203	6
RMS= 41 10²cm⁻¹					RMS= 3.6 10²cm⁻¹				
H₂ D⁺ → EF 2-6					H₂ D⁺ → EF 2-7				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 5	13351.58	13351.56	0.963	-2	P 2	13348.72			
P 4	13367.09	13367.07	1.085	-2	R 0	13413.14	13413.12	1.630	-2
P 3	13368.11	13368.10	0.728	-1	R 1	13505.47	13505.49	1.213	2
P 2	13561.56	13561.55	2.966	-1	P 3	13573.34	13573.36	1.235	2
R 0	13692.11	13692.09	1.451	-2	R 2	13623.91	13623.90	1.087	-1
R 3	13743.24	13743.21	1.245	-3	P 4	13650.52	13650.51	1.192	-1
R 1	13757.71	13757.73	1.449	2	P 5	13785.43	13785.41	1.236	-2
R 2	13836.75	13836.74	1.475	-1	R 3	13948.47	13948.45	1.426	-2
RMS= 1.6 10²cm⁻¹					RMS= 1.6 10²cm⁻¹				
H₂ D⁺ → EF 2-8					H₂ D⁺ → EF 2-9				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	12471.49	12471.48	3.155	-1	P 2	11777.74	11777.79	0.309	5
R 0	12521.11	12521.19	0.726	8	P 3	11806.48	11806.47	1.130	-1
P 3	12534.92	12534.93	1.189	1	R 0	11866.79	11866.82	3.212	3
R 1	12615.98				P 4	11869.19	11869.15	3.235	-4
P 4	12635.20				R 1	11948.06	11948.07	1.368	1
R 2	12746.67				P 5	11968.32	11968.32	1.030	0
P 5	12766.44	12766.42	0.913	-2	R 2	12052.93	12052.87	0.684	-6
R 3	12910.05				R 3	12181.61	12181.70	0.718	9
RMS= 2.8 10²cm⁻¹					RMS= 3.5 10²cm⁻¹				

H₂ D⁺ → EF 2-10					H₂ D⁺ → EF 2-11				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	11209.16	11209.15	0.041	-1	P 2	10475.26	10475.22	0.216	-4
P 3	11240.96	11240.94	3.682	-2	P 3	10523.65	10523.68	1.169	3
R 0	11285.55	11285.54	1.757	-1	R 0	10538.66	10538.63	0.729	-3
R 1	11372.10	11372.12	0.712	2	R 1	10629.09	10629.10	2.127	1
R 2	11484.34	11484.38	0.408	4	R 2	10750.45			
R 3	11616.08	11616.11	2.837	3	R 3	10898.78			
RMS= 22 10⁻² cm⁻¹					RMS= 22 10⁻² cm⁻¹				
H₂ D⁺ → EF 2-12					H₂ D⁺ → EF 2-13				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
P 2	9755.18				P 2	9082.13			
P 3	9797.99	9798.00	2.950	1	P 3	9122.69	9122.71	0.357	2
R 0	9825.86				R 0	9153.23			
P 4	9872.61	9872.61	0.728	0	P 4	9192.14			
R 1	9913.70				R 1	9241.15	9241.15	6.265	0
P 5	9976.76	9976.75	6.284	-1	P 5	9288.04	9288.03	1.834	-1
R 2	10030.36	10030.35	1.694	-1	R 2	9357.32			
R 3	10173.12	10173.14	3.497	2	R 3	9497.82	9497.77	0.452	-5
RMS= 13 10⁻² cm⁻¹					RMS= 15 10⁻² cm⁻¹				
H₂ D⁻ → EF 0-0					H₂ D⁻ → EF 0-2				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 7	13592.11	13592.11	1.017	0	Q 1	12360.82	12360.80	2.627	-2
Q 6	13619.76	13619.75	0.953	-1	Q 2	12454.50			
Q 5	13644.10	13644.10	1.711	0	Q 3	12593.89			
Q 4	13664.89	13664.89	1.372	0	Q 4	12777.71	12777.64	0.443	-7
Q 3	13681.84	13681.84	1.540	0	RMS= 29 10⁻² cm⁻¹				
Q 2	13694.75	13694.75	1.512	0					
Q 1	13703.44	13703.44	1.495	0					
RMS= 03 10⁻² cm⁻¹									
H₂ D⁻ → EF 0-3					H₂ D⁻ → EF 0-4				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 4	11375.19	11375.20	1.103	1	Q 1	11220.81			
Q 3	11375.20	11375.20	1.103	0	Q 2	11314.27			
Q 5	11375.21	11375.20	1.103	-1	Q 3	11456.03	11456.09	0.506	6
Q 1	11377.63	11377.64	1.966	1	Q 4	11640.09			
Q 2	11377.66	11377.64	1.966	-2	Q 5	11867.31	11867.26	3.235	-5
RMS= 15 10⁻² cm⁻¹					Q 6	12135.93			
					Q 7	12442.91	12442.91	2.076	0
					RMS= 39 10⁻² cm⁻¹				

H ₂ D ⁻ → EF 0-5					H ₂ D ⁻ → EF 0-6				
Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹	
Q 1 10141.52					Q 3 9229.39				
Q 2 10235.42					Q 4 9296.41	9296.38	1.316	-3	
Q 3 10375.24					Q 1 9326.05				
Q 4 10559.75					Q 2 9359.16	9359.18	1.494	2	
Q 5 10787.24	10787.29	1.735	5		RMS= 2.5 10 ² cm ⁻¹				
Q 6 11055.44									
Q 7 11362.82	11362.76	0.265	-6						
RMS= 5.0 10 ² cm ⁻¹									
H ₂ D ⁻ → EF 0-7					H ₂ D ⁻ → EF 0-11				
Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹	
Q 1 9073.81	9073.77	6.475	-4		Q 1 6197.43				
Q 2 9146.32					Q 2 6272.86	6272.81	1.043	-5	
Q 3 9434.63	9434.68	0.892	5		Q 3 6384.94	6384.92	0.458	-2	
Q 7 9479.53	9479.46	0.009	-7		RMS= 4.2 10 ² cm ⁻¹				
Q 4 9579.84									
Q 6 9684.52									
Q 5 9789.34									
RMS= 4.1 10 ² cm ⁻¹									
H ₂ D ⁻ → EF 1-0					H ₂ D ⁻ → EF 1-1				
Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹	
Q 5 15824.24	15824.25	6.224	1		Q 1 15778.35	15778.36	3.133	1	
Q 4 15860.08	15860.09	4.891	1		Q 2 15865.39	15865.39	8.679	0	
Q 3 15889.22	15889.15	4.615	-7		RMS= 0.4 10 ² cm ⁻¹				
Q 2 15911.35	15911.38	6.229	3						
Q 1 15926.18	15926.21	4.627	3						
RMS= 3.3 10 ² cm ⁻¹									
H ₂ D ⁻ → EF 1-3					H ₂ D ⁻ → EF 1-4				
Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹	
Q 5 13555.36	13555.31	1.188	-5		Q 1 13443.55	13443.53	0.219	-2	
Q 4 13570.38	13570.37	1.211	-1		Q 2 13530.87	13530.87	1.775	0	
Q 3 13582.58	13582.58	1.267	0		Q 3 13663.40				
Q 2 13594.26	13594.24	1.231	-2		Q 4 13835.28				
Q 1 13600.38	13600.38	1.363	0		Q 5 14047.45	14047.53	0.377	8	
RMS= 2.2 10 ² cm ⁻¹					RMS= 3.3 10 ² cm ⁻¹				
H ₂ D ⁻ → EF 1-5					H ₂ D ⁻ → EF 1-6				
Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹	
Q 1 12364.27	12364.21	0.896	-6		Q 3 11436.77	11436.77	1.136	0	
Q 2 12452.02					Q 4 11491.60	11491.62	0.209	2	
Q 3 12582.62	12582.63	3.189	1		Q 5 11535.63	11535.56	0.032	-7	
RMS= 2.7 10 ² cm ⁻¹					Q 1 11548.79	11548.79	1.322	0	
					Q 2 11575.76	11575.73	1.325	-3	
					RMS= 1.9 10 ² cm ⁻¹				

H₂ D⁻ → EF 1-7					H₂ D⁻ → EF 1-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	11296.56	11296.51	2.171	-5	Q 1	10407.06	10407.02	1.839	-4
Q 2	11362.92	11362.83	0.030	-9	Q 2	10485.69			
Q 3	11642.00	11642.00	1.444	0	Q 3	10603.58	10603.53	1.645	-5
Q 4	11775.03				Q 4	10759.72	10759.68	3.166	-4
Q 5	11969.48	11969.55	0.313	7	Q 5	10950.49	10950.54	3.379	5
RMS= 3.8 10² cm⁻¹					RMS= 4.3 10² cm⁻¹				
H₂ D⁻ → EF 1-9					H₂ D⁻ → EF 1-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	9739.15	9739.14	0.825	-1	Q 1	7704.78	7704.84	3.763	6
Q 2	9791.94				Q 2	7769.38	7769.35	0.111	-3
Q 3	9875.14	9875.18	0.699	4	Q 3	7866.65			
RMS= 2.5 10² cm⁻¹					Q 4	7997.13	7997.18	2.453	5
					RMS= 5.7 10² cm⁻¹				
H₂ D⁻ → EF 2-0					H₂ D⁻ → EF 2-1				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 4	17926.84	17926.77	1.221	-7	Q 1	17871.82			
Q 3	17967.78	17967.82	0.895	4	Q 2	17952.87			
Q 2	17998.83				Q 3	18073.38			
Q 1	18019.64	18019.70	2.627	6	Q 4	18232.19	18232.28	0.612	9
RMS= 5.8 10² cm⁻¹					Q 5	18427.71	18427.73	1.773	2
					RMS= 4.9 10² cm⁻¹				
H₂ D⁻ → EF 2-5					H₂ D⁻ → EF 2-6				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	14457.73	14457.73	1.058	0	Q 3	13515.33	13515.33	1.213	0
Q 2	14539.50	14539.48	0.229	-2	Q 4	13558.36	13558.35	1.142	-1
Q 3	14661.18	14661.18	0.231	0	Q 5	13587.71	13587.69	1.178	-2
RMS= 1.0 10² cm⁻¹					Q 1	13642.25	13642.25	1.462	0
					Q 2	13663.24	13663.22	1.381	-2
					RMS= 1.2 10² cm⁻¹				
H₂ D⁻ → EF 2-7					H₂ D⁻ → EF 2-8				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	13390.02	13390.01	1.297	-1	Q 1	12500.52			
Q 2	13450.40	13450.38	1.208	-2	Q 2	12573.17	12573.12	0.995	-5
Q 3	13720.57	13720.57	1.429	0	Q 3	12682.15	12682.14	0.534	-1
Q 4	13841.79	13841.75	2.251	-4	Q 4	12826.48			
Q 5	14021.56	14021.53	0.416	-3	Q 5	13002.57	13002.57	0.788	0
RMS= 2.5 10² cm⁻¹					RMS= 3.2 10² cm⁻¹				

H ₂ D ⁻ → EF 2-9					H ₂ D ⁻ → EF 2-10				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	11832.61	11832.66	6.775	5	Q 1	11256.65	11256.65	1.509	0
Q 2	11879.42	11879.38	3.035	-4	Q 2	11310.84	11310.81	0.989	-3
Q 3	11953.71				Q 3	11388.18	11388.19	1.127	1
Q 4	12060.46	12060.38	0.226	-8	RMS= 1.8 10 ² cm ⁻¹				
RMS= 5.0 10 ² cm ⁻¹									
H ₂ D ⁺ → EF 2-11					H ₂ D ⁺ → EF 2-12				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	10513.64	10513.64	2.560	0	Q 1	9798.25	9798.24	1.999	-1
Q 2	10576.94	10576.96	4.269	2	Q 2	9856.86			
Q 3	10670.88				Q 3	9945.22	9945.25	3.312	3
Q 4	10793.64	10793.64	12.560	0	Q 4	10063.89			
Q 5	10941.58	10941.55	3.673	-3	Q 5	10212.89	10212.93	0.153	4
RMS= 1.6 10 ² cm ⁻¹					RMS= 2.4 10 ² cm ⁻¹				
H ₂ D ⁺ → EF 2-13					H ₂ D ⁺ → EF 2-14				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	9125.70				Q 1	8433.09	8433.08	0.176	-1
Q 2	9183.81				Q 2	8496.01	8496.06	19.780	5
Q 3	9269.92	9269.98	2.496	6	Q 3	8589.00			
Q 4	9383.42				Q 4	8710.44			
Q 5	9524.17	9524.15	4.318	-2	Q 5	8858.04	8858.03	20.420	-1
RMS= 4.1 10 ² cm ⁻¹					RMS= 3.1 10 ² cm ⁻¹				
H ₂ D ⁺ → EF 2-15					H ₂ D ⁺ → EF 2-16				
	Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹		Calc cm ⁻¹	Obs cm ⁻¹	W	O-C x10 ⁺² cm ⁻¹
Q 1	7733.22				Q 1	7062.79	7062.77	0.933	-2
Q 2	7797.49				Q 2	7125.22	7125.21	4.824	-1
Q 3	7893.48	7893.53	0.154	5	Q 3	7218.71	7218.69	2.390	-1
Q 4	8020.52	8020.55	6.714	3	RMS= 1.3 10 ² cm ⁻¹				
RMS= 2.7 10 ² cm ⁻¹									